

FIG. 1

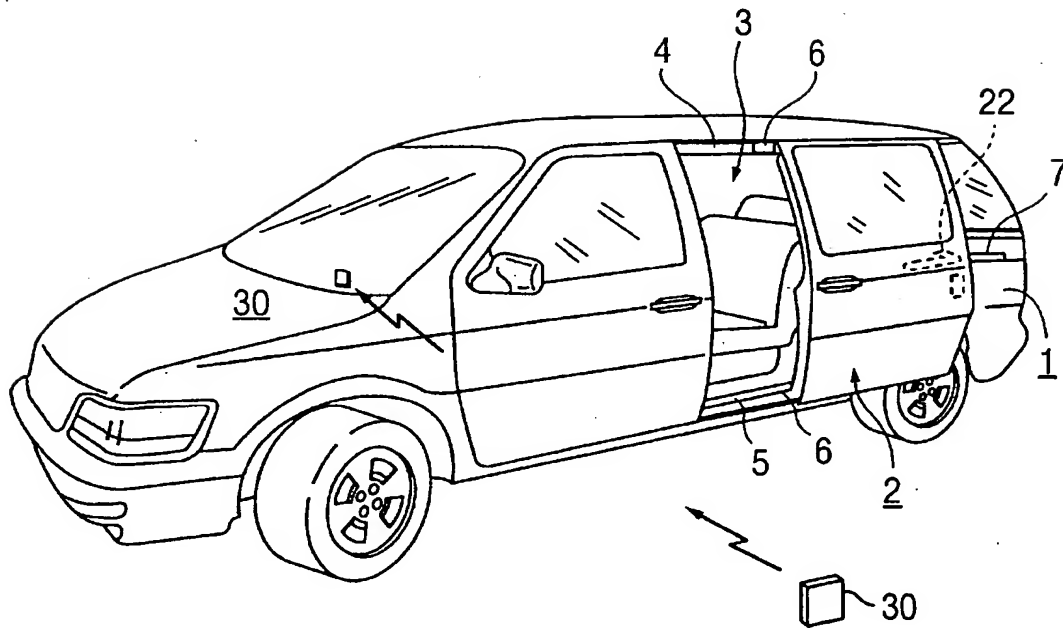


FIG. 2

FIG. 2 is a perspective view of a vehicle with a side door open. The door is labeled 1. The interior of the vehicle is labeled 2. The door handle is labeled 3. The door latch is labeled 4. The door hinge is labeled 5. The door frame is labeled 6. The door seal is labeled 7. The door trim is labeled 8. The door sill is labeled 9. The door lock is labeled 10. The door latch assembly is labeled 11.

FIG. 4

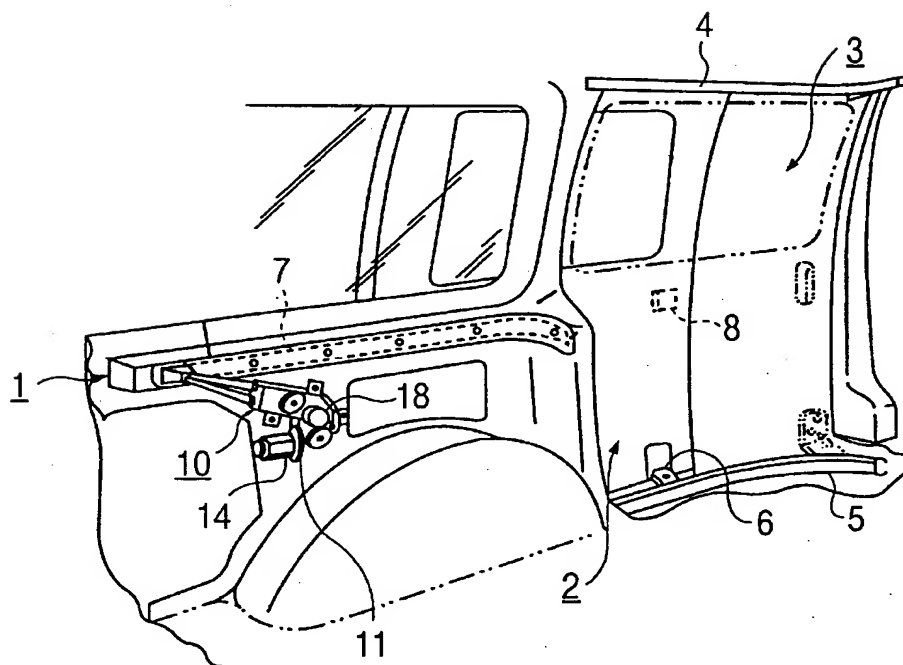


FIG. 5

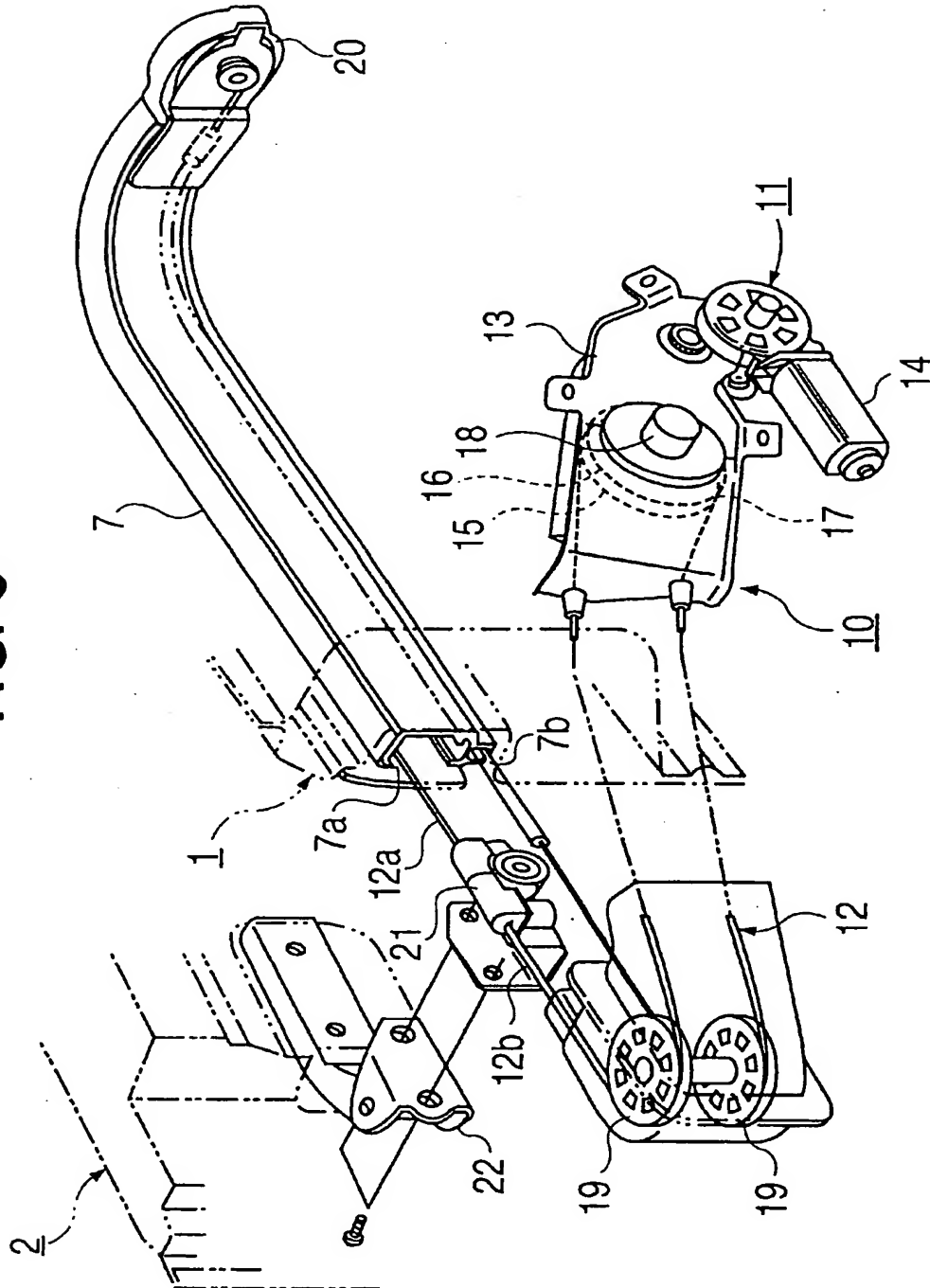


FIG. 6

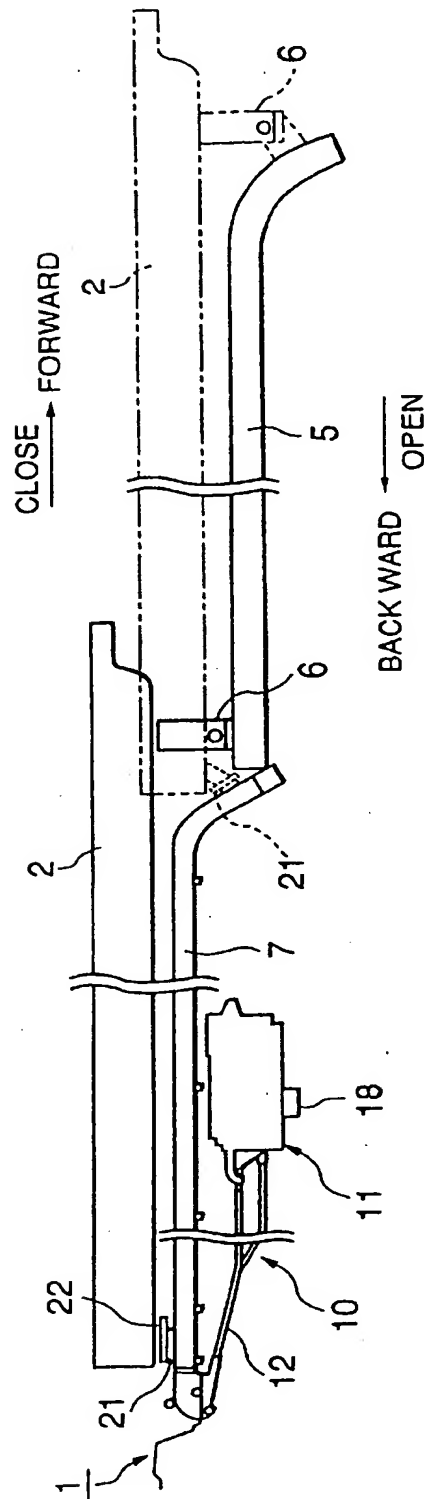


FIG. 7

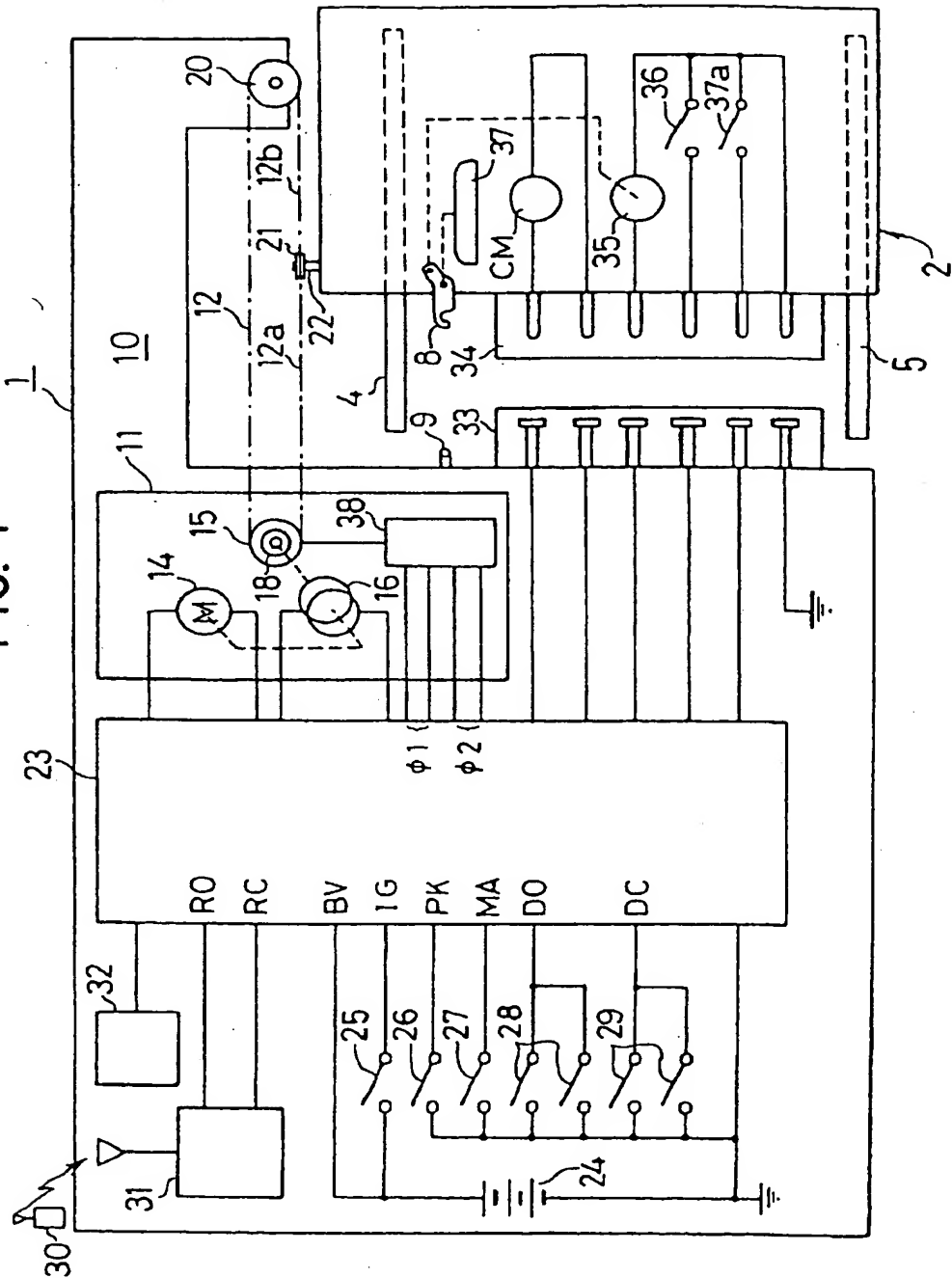


FIG. 8

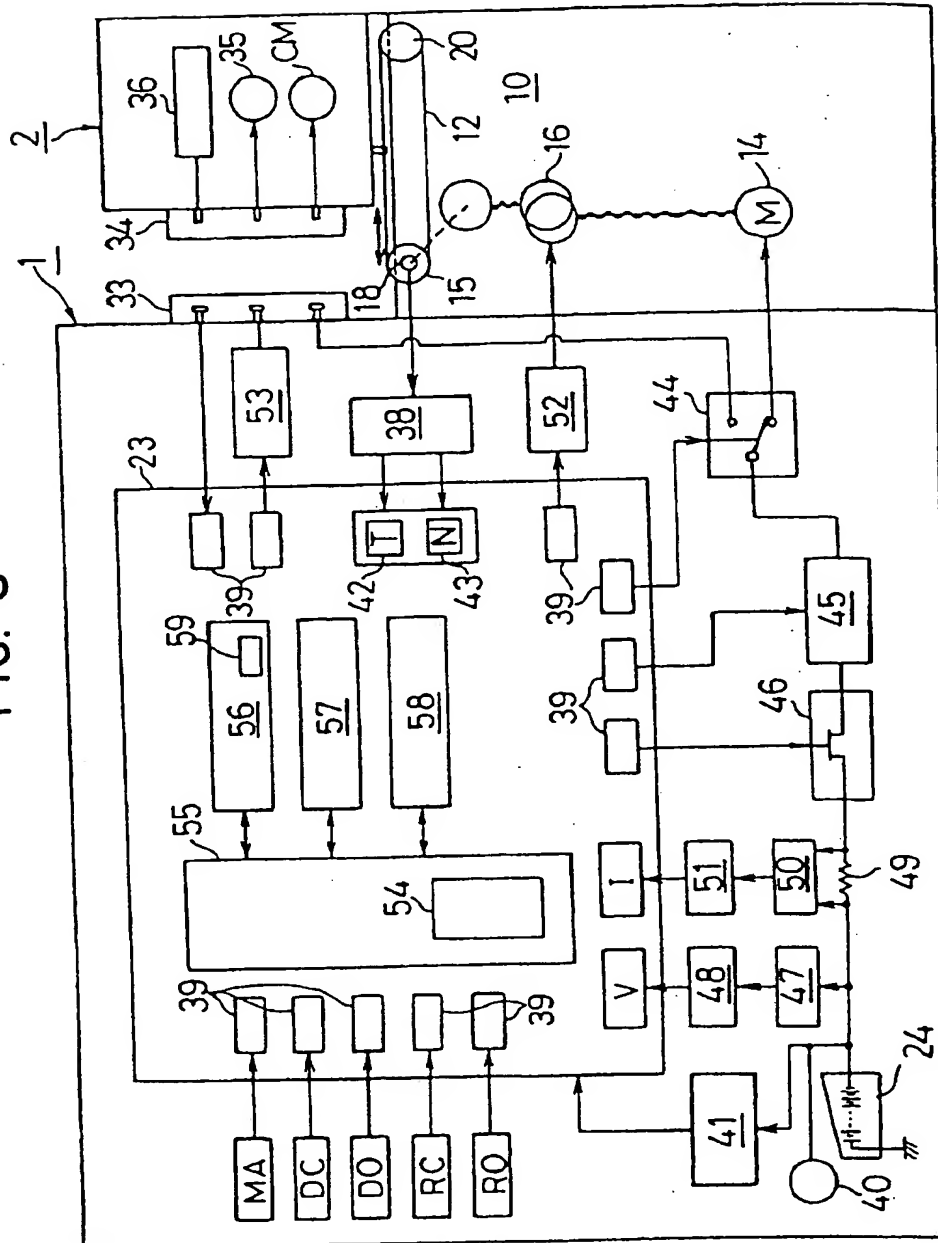


FIG. 9

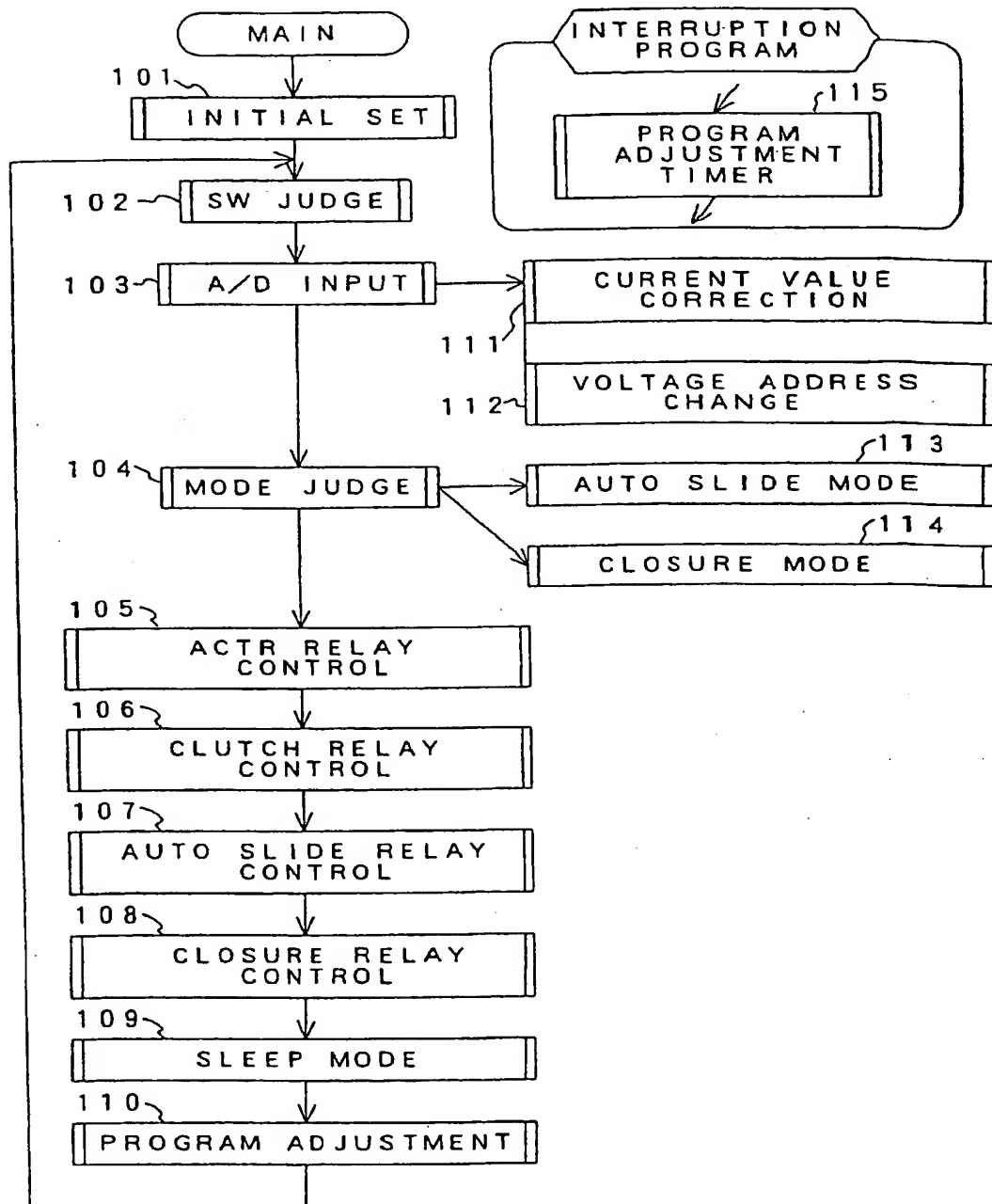


FIG. 10

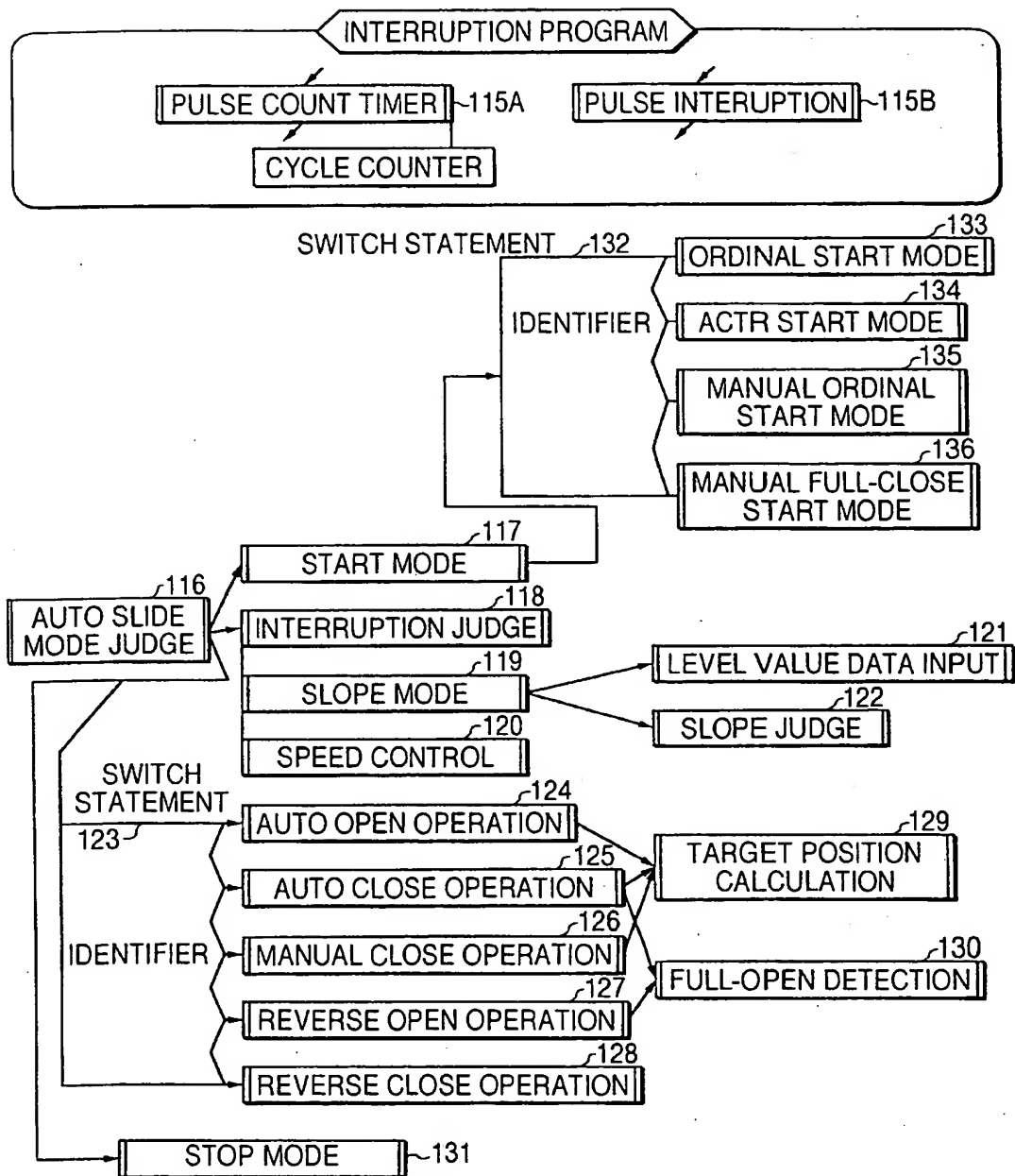


FIG. 11

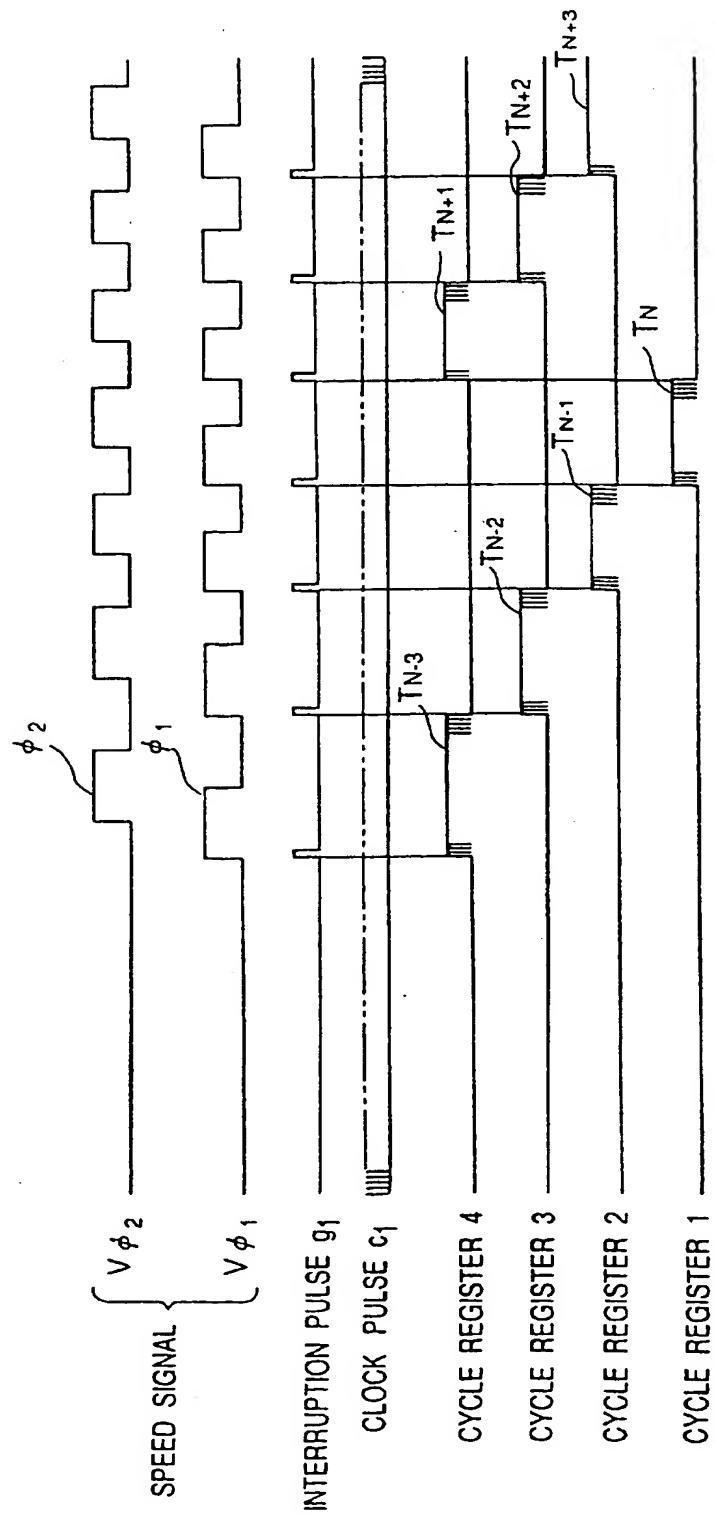


FIG. 12

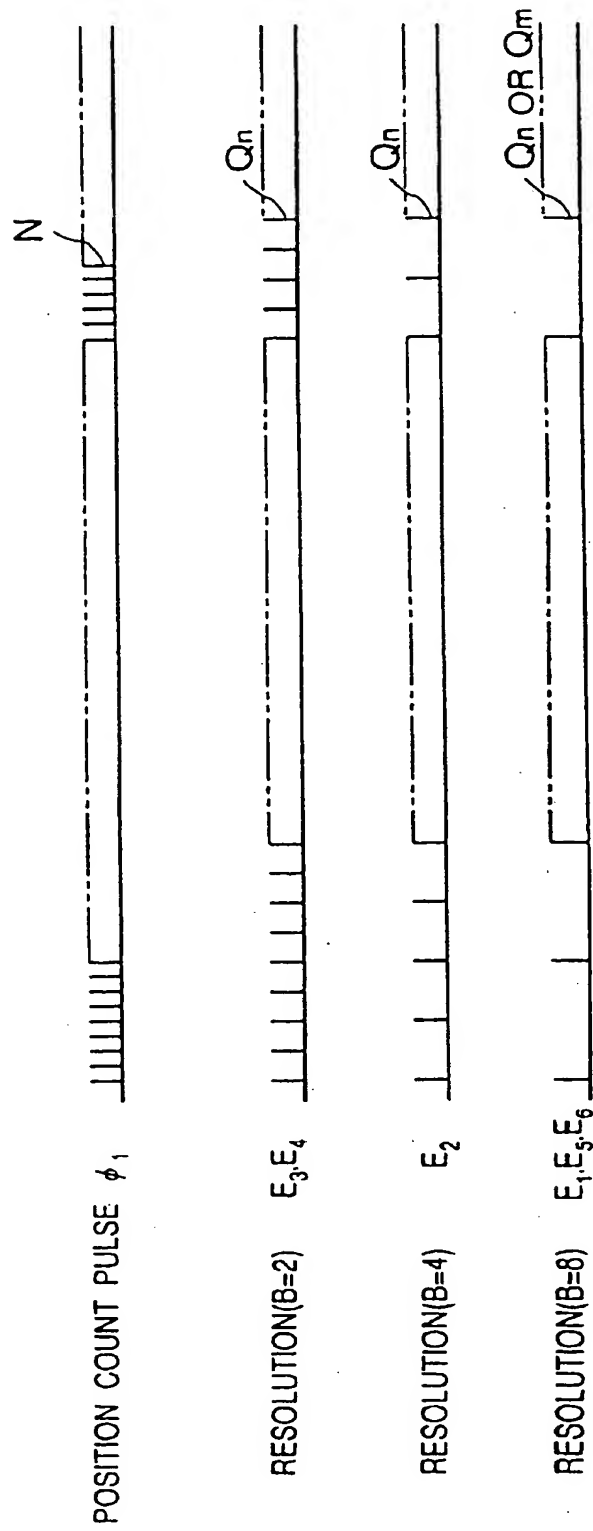
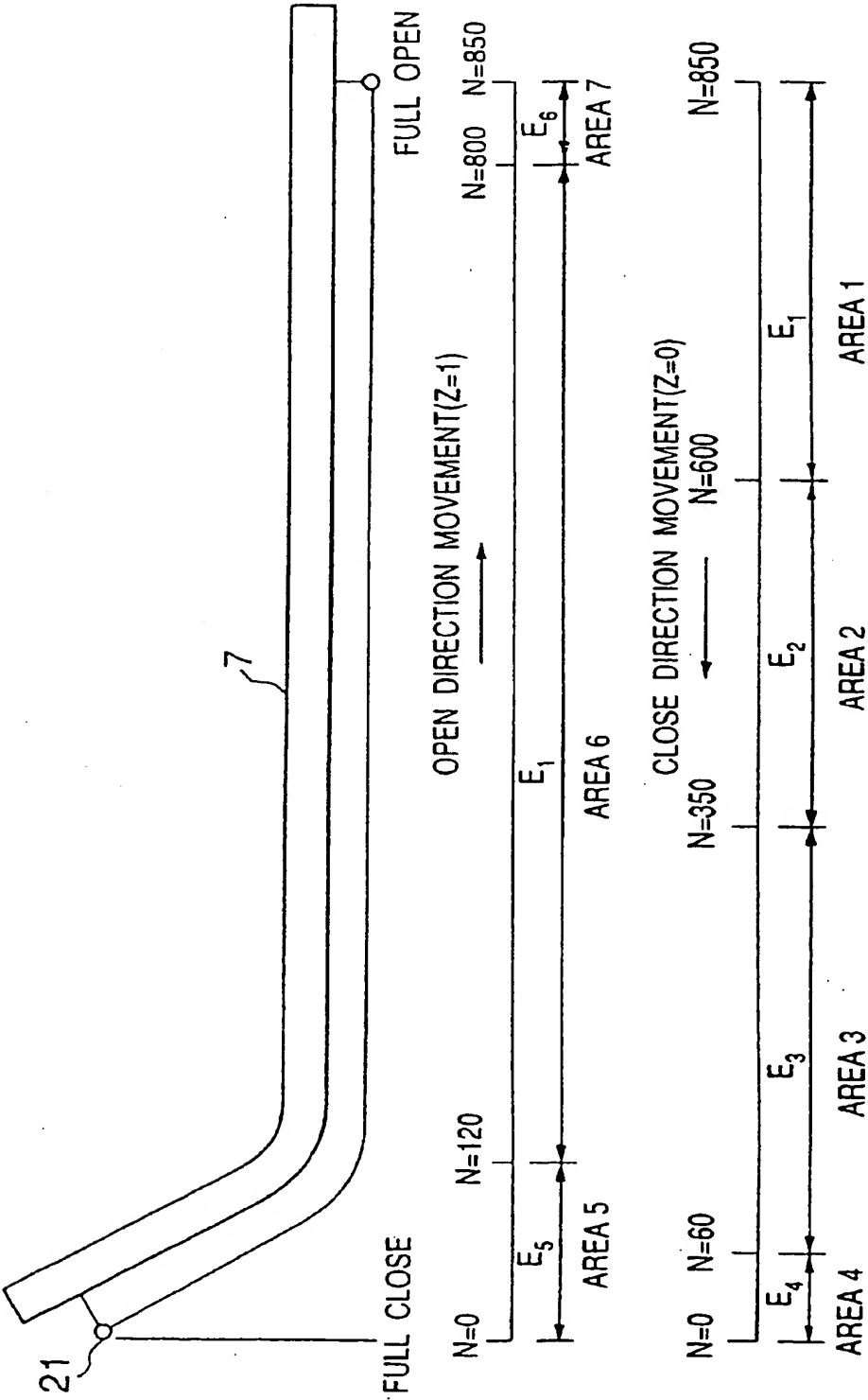


FIG. 13





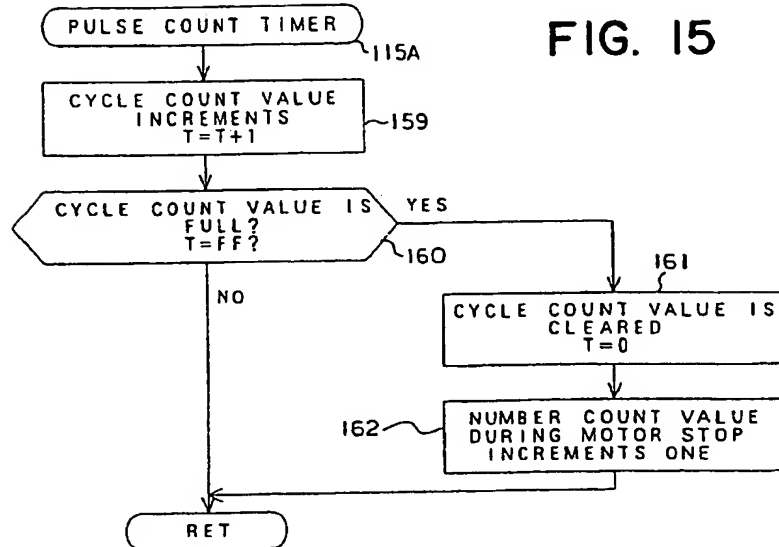


FIG. 16

| AREA NAME | CONTROL REGION NAME | DOOR MOVEMENT CONTROL SPEED | STUDY RESOLUTION | ATTENTION DEGREE |
|-----------|---|-----------------------------------|------------------|-------------------|
| AREA1 | ORDINAL CONTROL REGION (E ₁) | T = 250 mm/s D = 259 | B = 8 | SMALL |
| AREA2 | SPEED REDUCTION CONTROL REGION (E ₂) | T = 170 mm/s D = 170 | B = 4 | DANGEROUS REGIONS |
| AREA3 | LINK SPEED REDUCTION CONTROL REGION (E ₃) | T = 100 mm/s D = 100 | B = 2 | |
| AREA4 | SHUT-DOWN CONTROL REGION (E ₄) | T = T × 1.2 = 120 mm/s D = 120 | B = 2 | |
| AREA5 | LINK SPEED REDUCTION CONTROL REGION (E ₅) | T = 200 mm/s D = 200 | B = 8 | SMALL |
| AREA6 | ORDINAL CONTROL REGION (E ₆) | T = 250 mm/s D = 250 | B = 8 | SMALL |
| AREA7 | CHECK CONTROL REGION (E ₇) | T = 250 mm/s | | MIDDLE |

FIG. 17

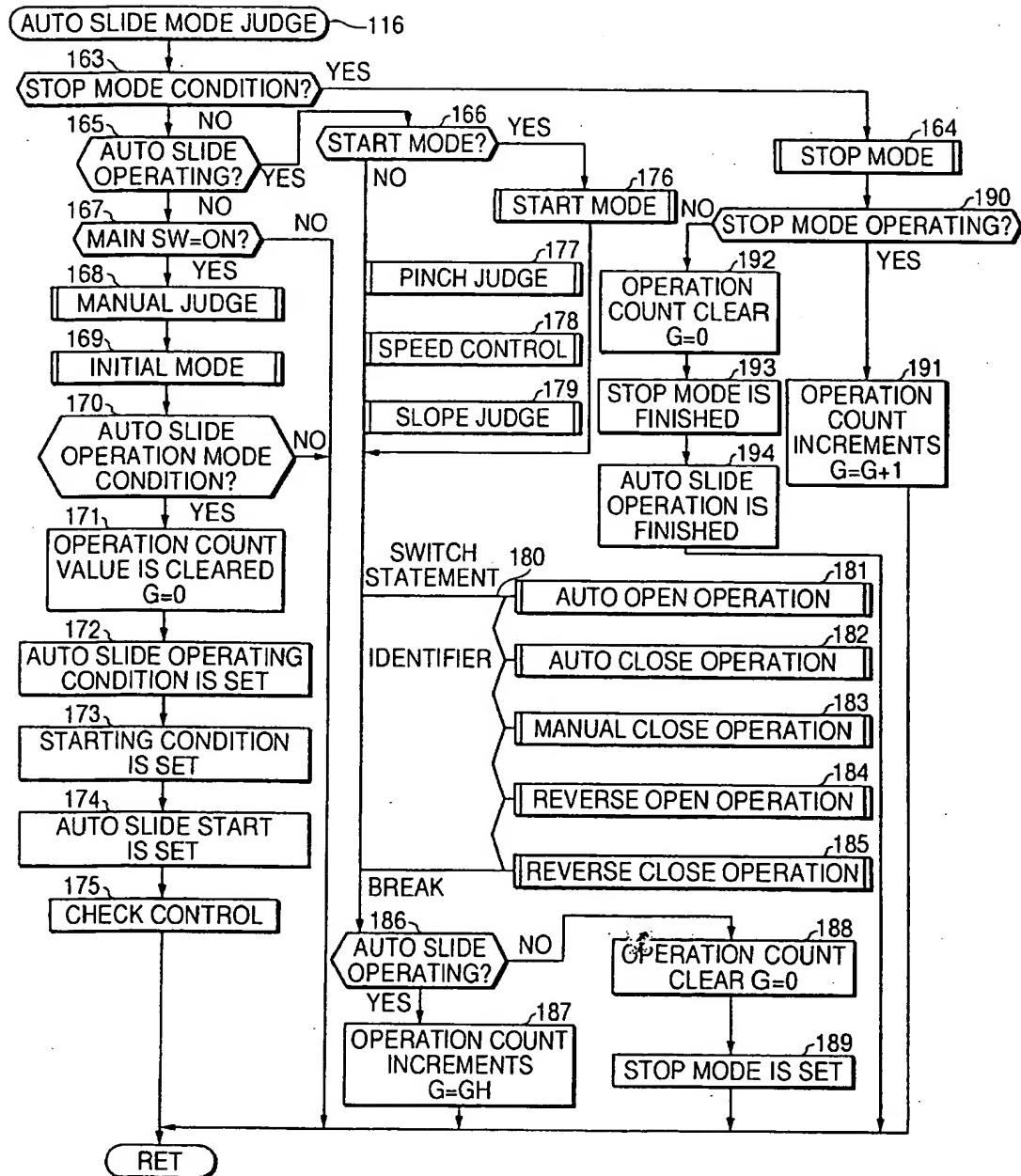


FIG. 18

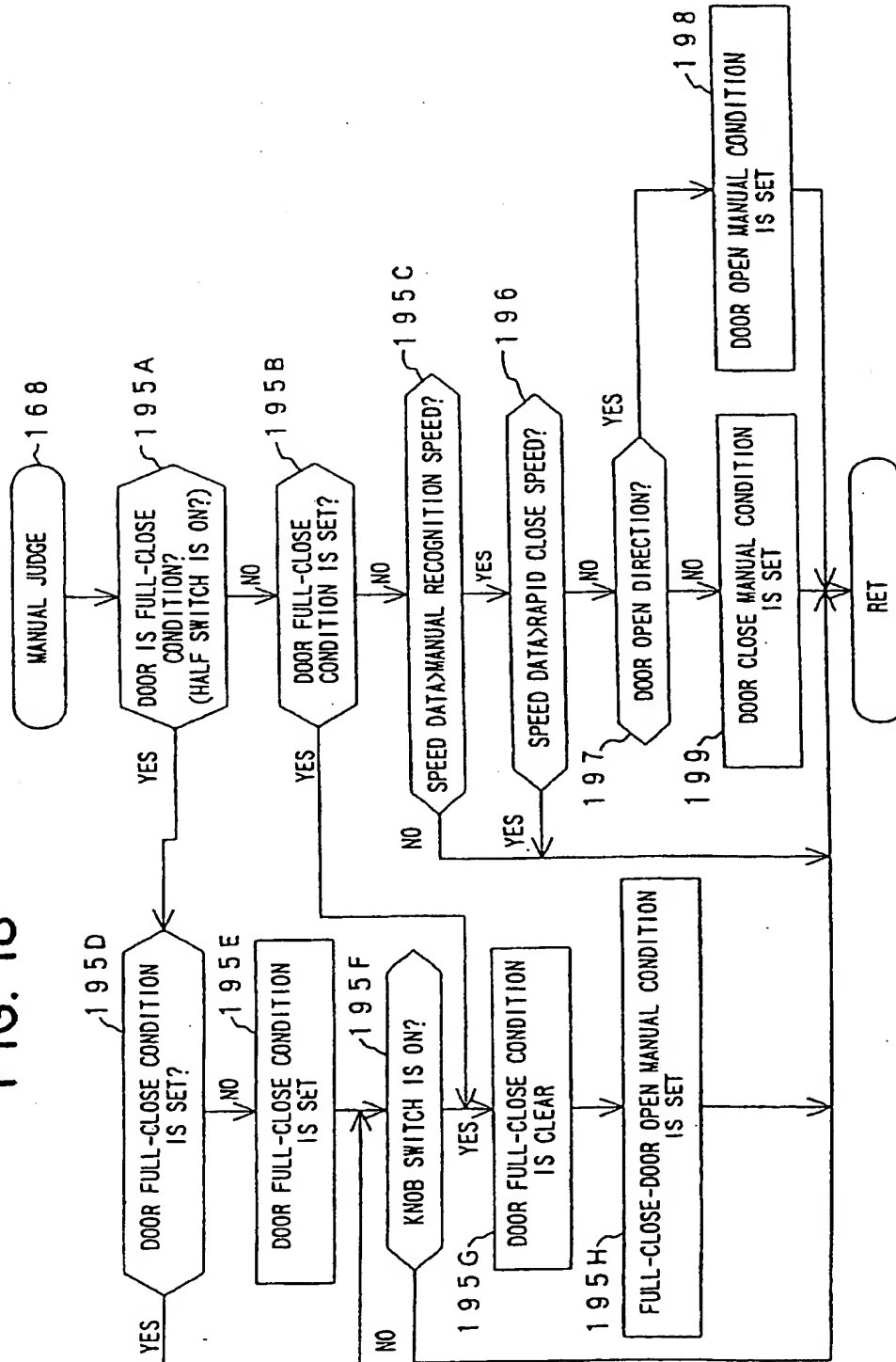
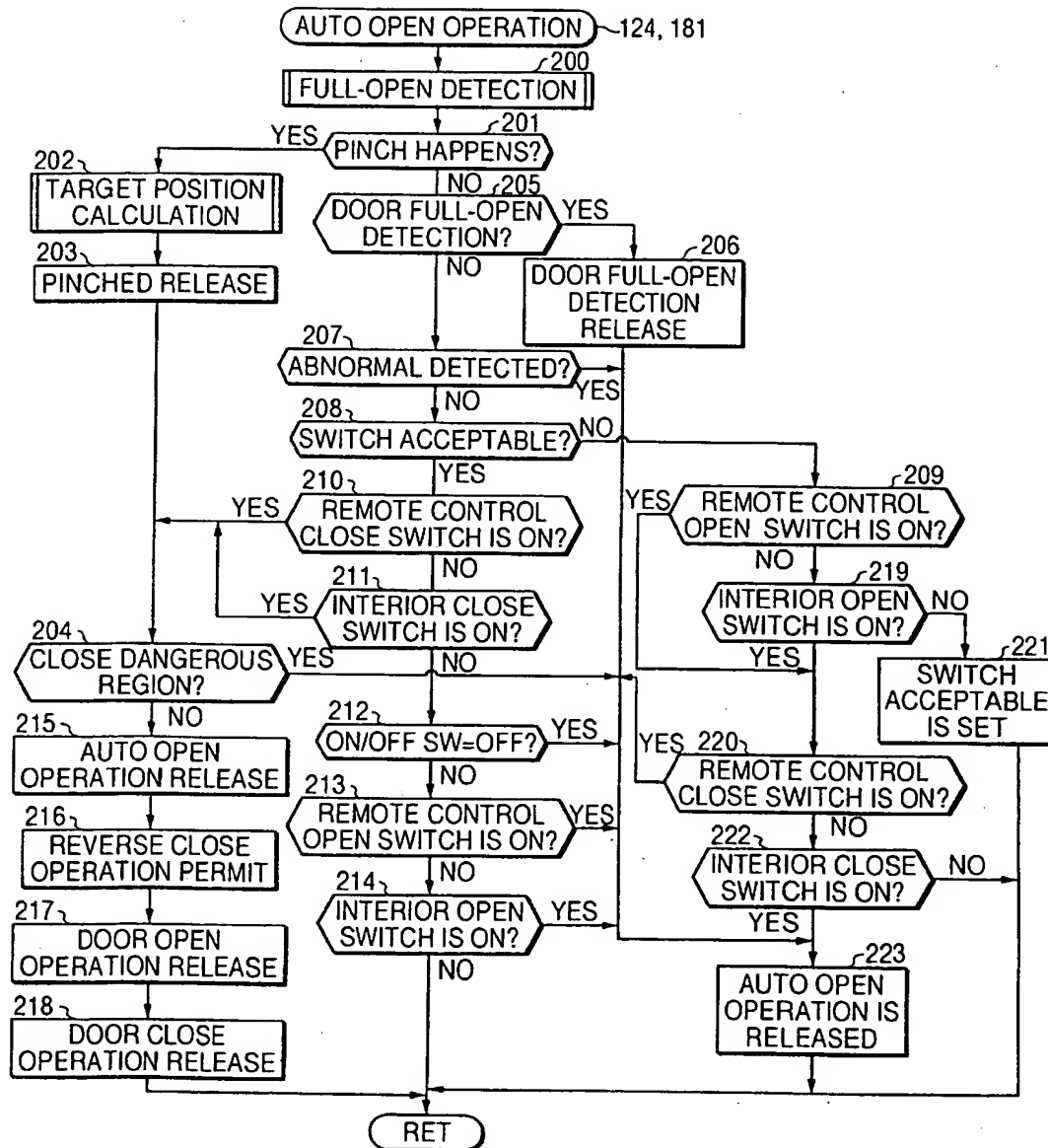


FIG. 19



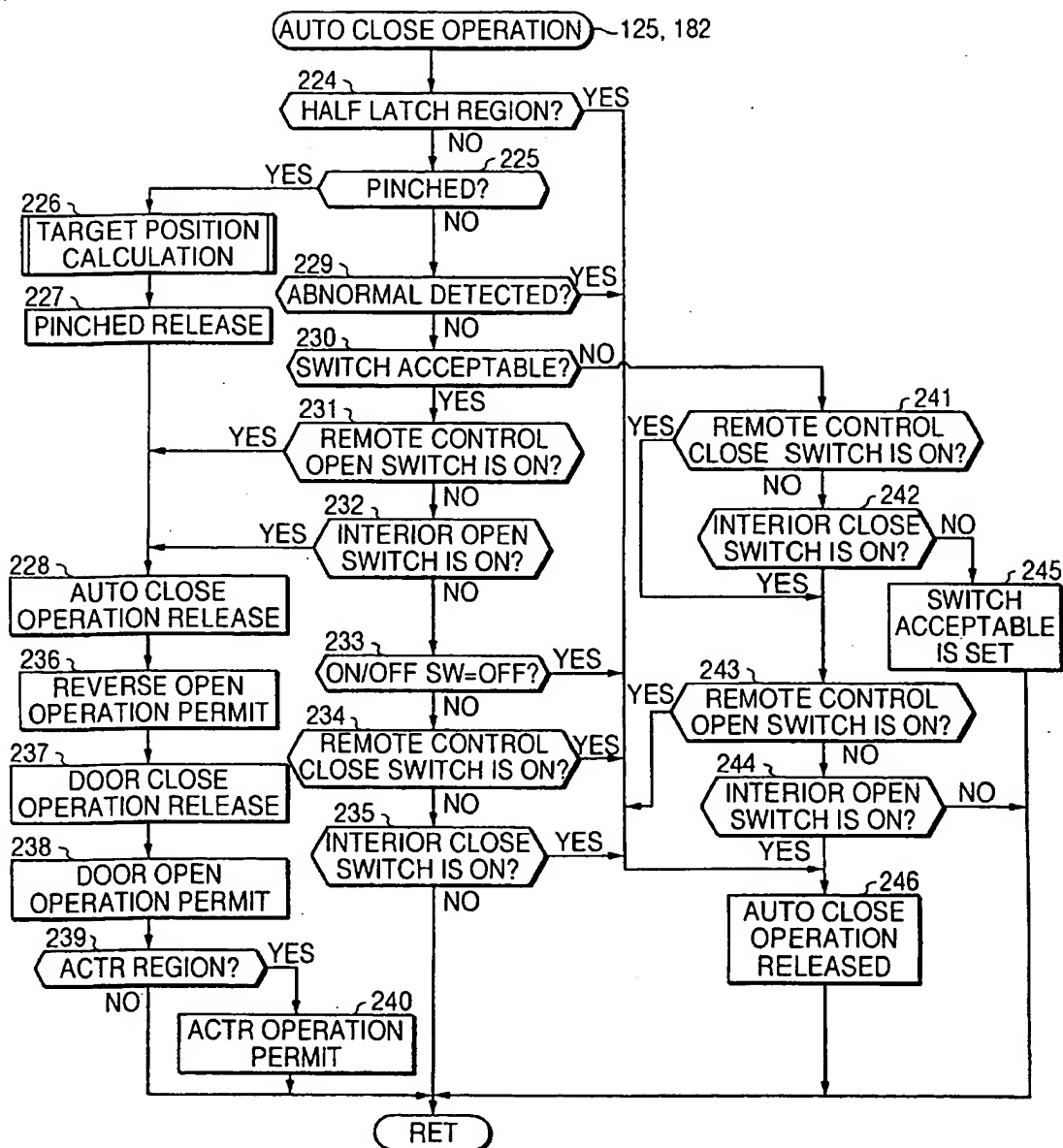


FIG. 21

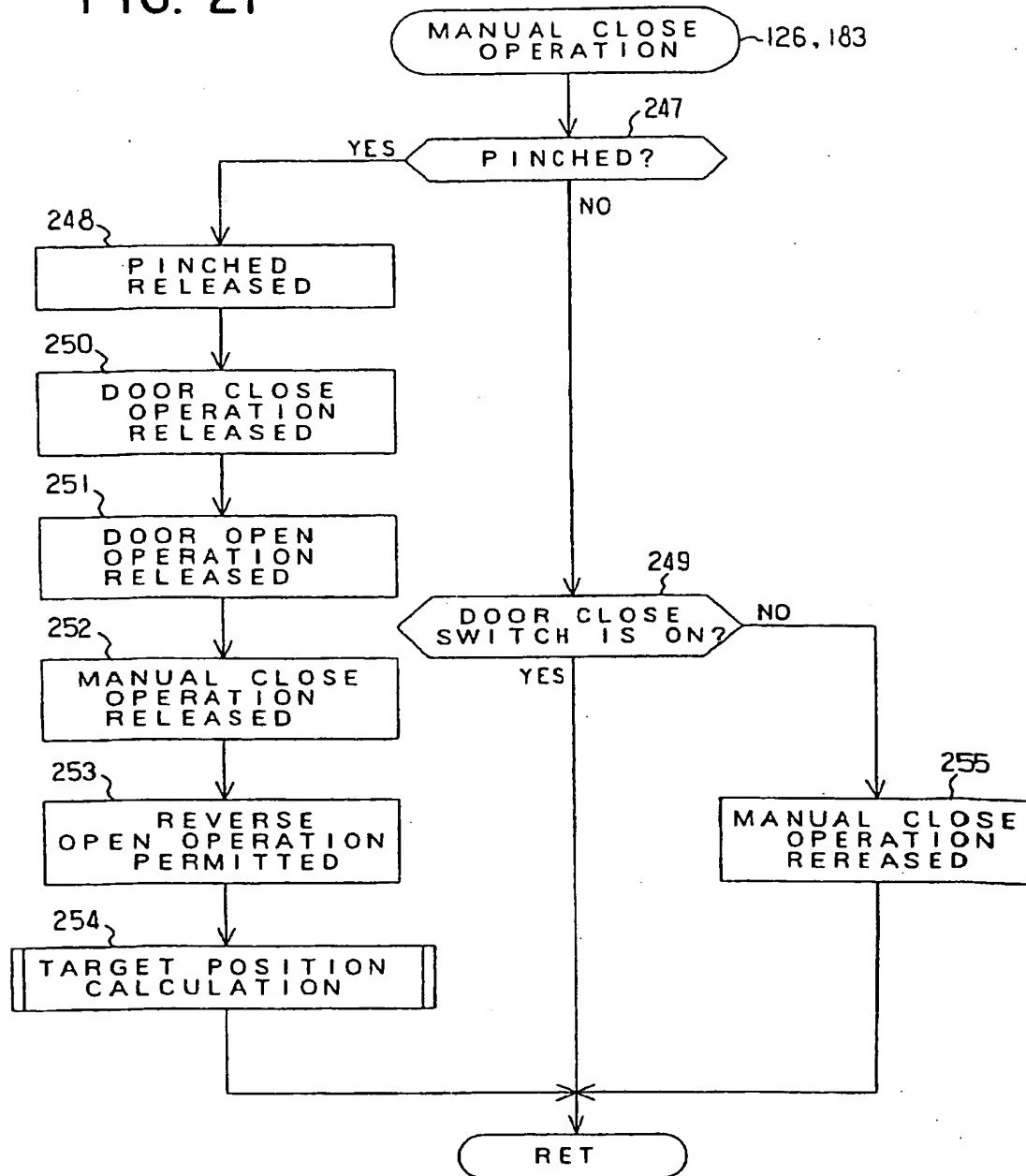
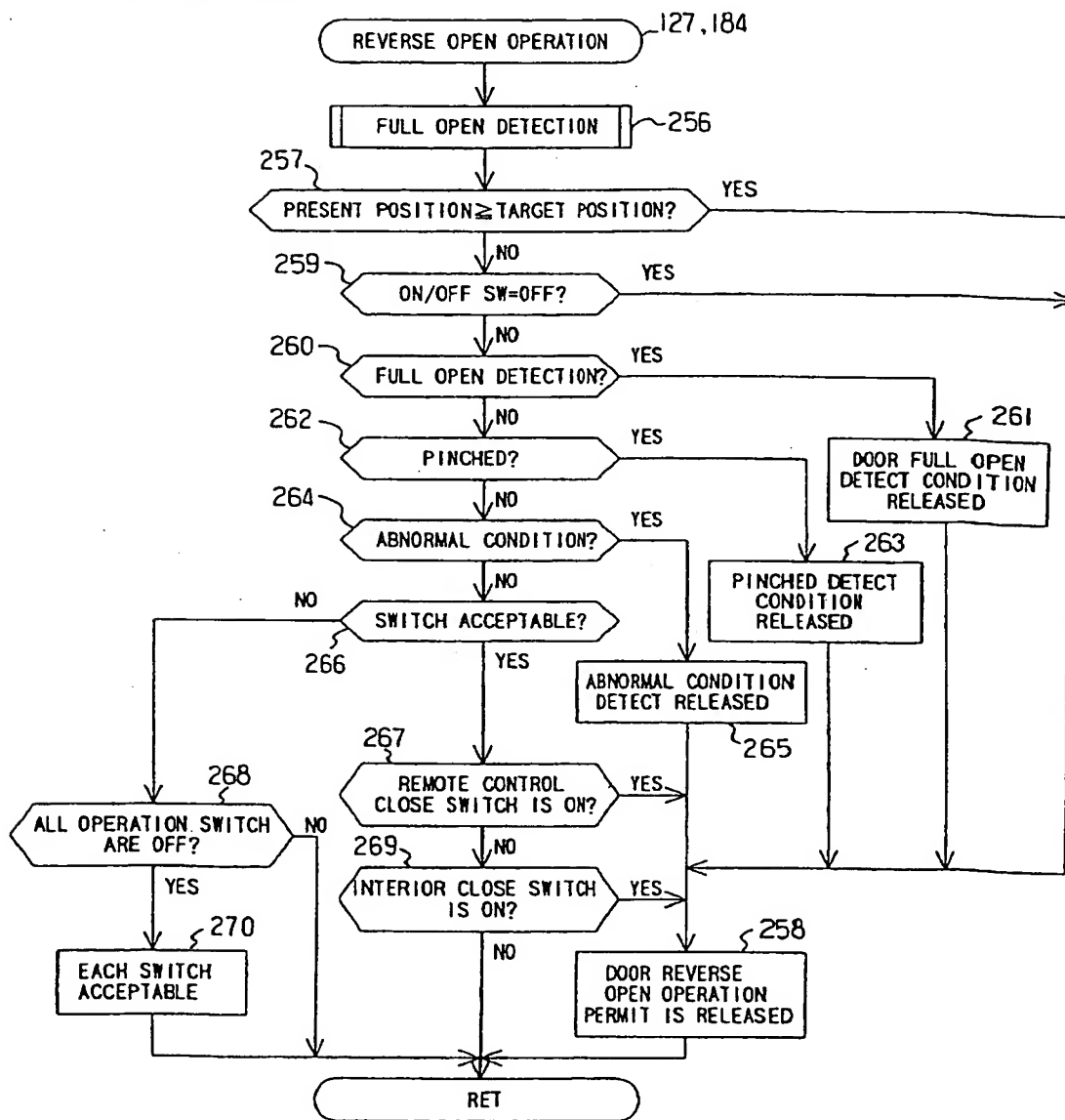


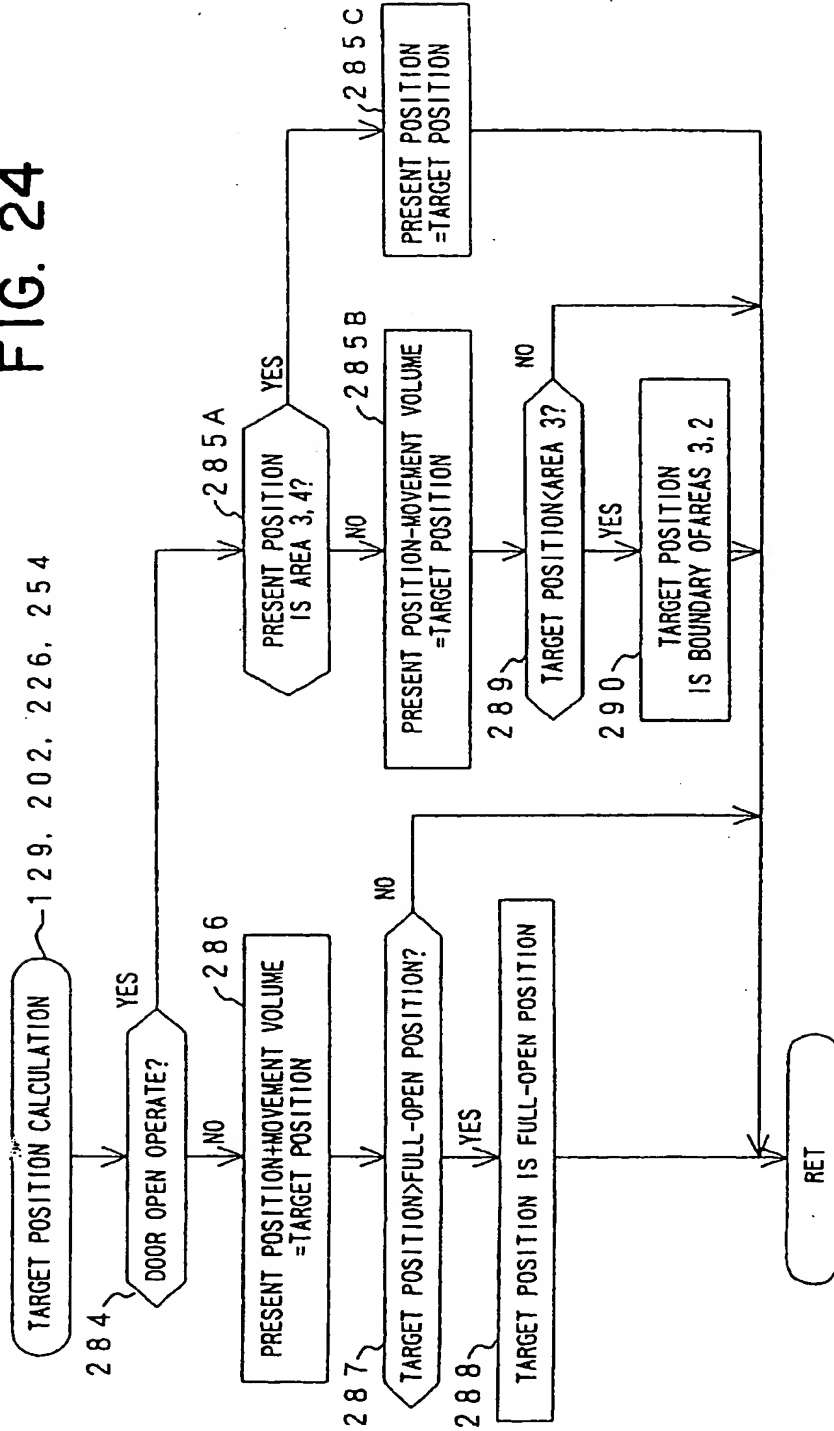
FIG. 22



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graph TD
    128185([REVERSE CLOSE OPERATION]) --> 271{PRESENT POSITION ≤ TARGET POSITION?}
    271 -- YES --> Exit1(( ))
    271 -- NO --> 273{PRESENT POSITION ≤ DANGEROUS REGION?}
    273 -- YES --> Exit2(( ))
    273 -- NO --> 274{ON/OFF SW=OFF?}
    274 -- YES --> Exit3(( ))
    274 -- NO --> 275{PINCHED?}
    275 -- YES --> 276[PINCHED DETECT CONDITION RELEASED]
    275 -- NO --> 277{ABNORMAL CONDITION?}
    277 -- YES --> 278[ABNORMAL CONDITION DETECT RELEASED]
    277 -- NO --> 279{SWITCH ACCEPTABLE?}
    279 -- YES --> 280{REMOTE CONTROL OPEN SWITCH IS ON?}
    280 -- YES --> 278
    280 -- NO --> 283{INTERIOR OPEN SWITCH IS ON?}
    283 -- YES --> 272[DOOR REVERSE CLOSE OPERATION PERMIT IS RELEASED]
    283 -- NO --> Junction1(( ))
    279 -- NO --> 281{ALL OPERATION SWITCH ARE OFF?}
    281 -- YES --> 282[EACH SWITCH ACCEPTABLE]
    281 -- NO --> Junction1
    272 --> Junction1
    276 --> Junction1
    278 --> Junction1
    Junction1 --> RET([RET])
  
```

FIG. 24



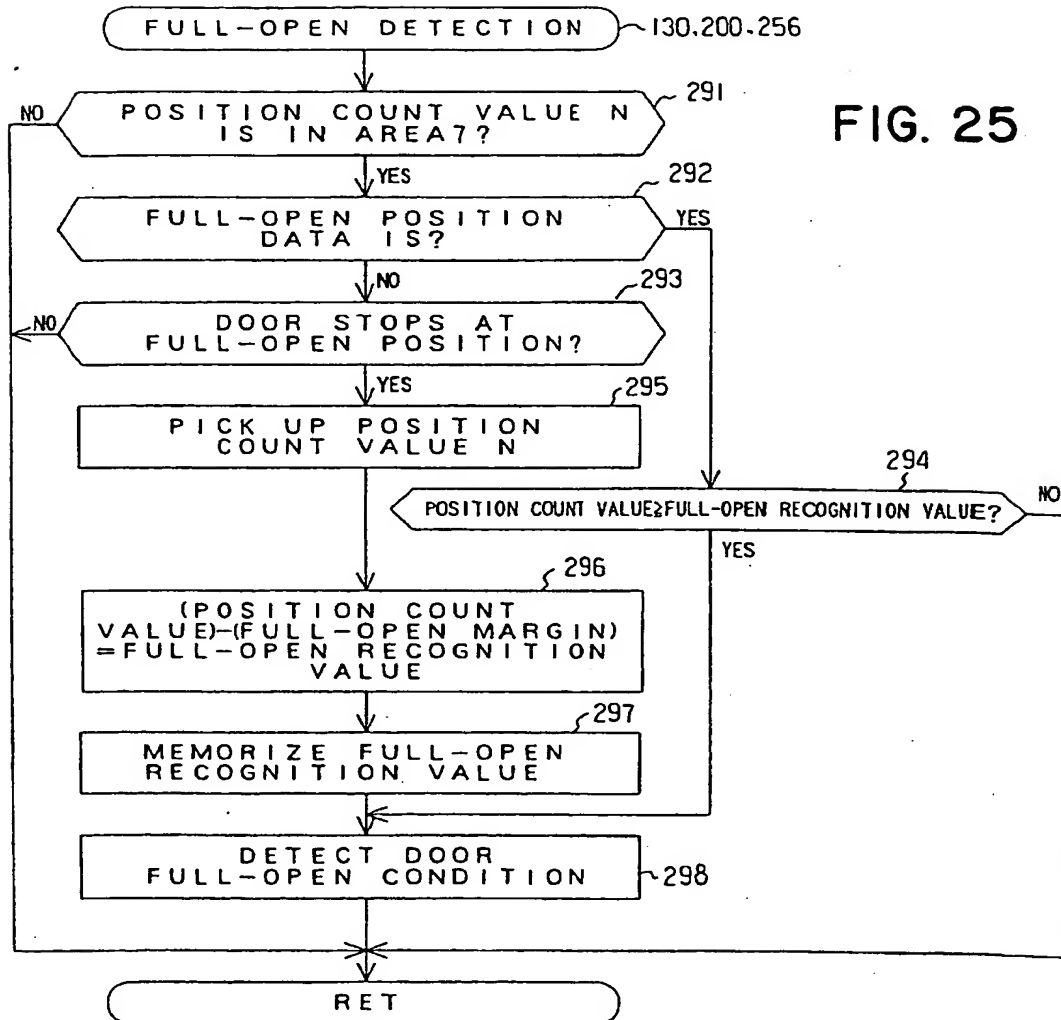


FIG. 26

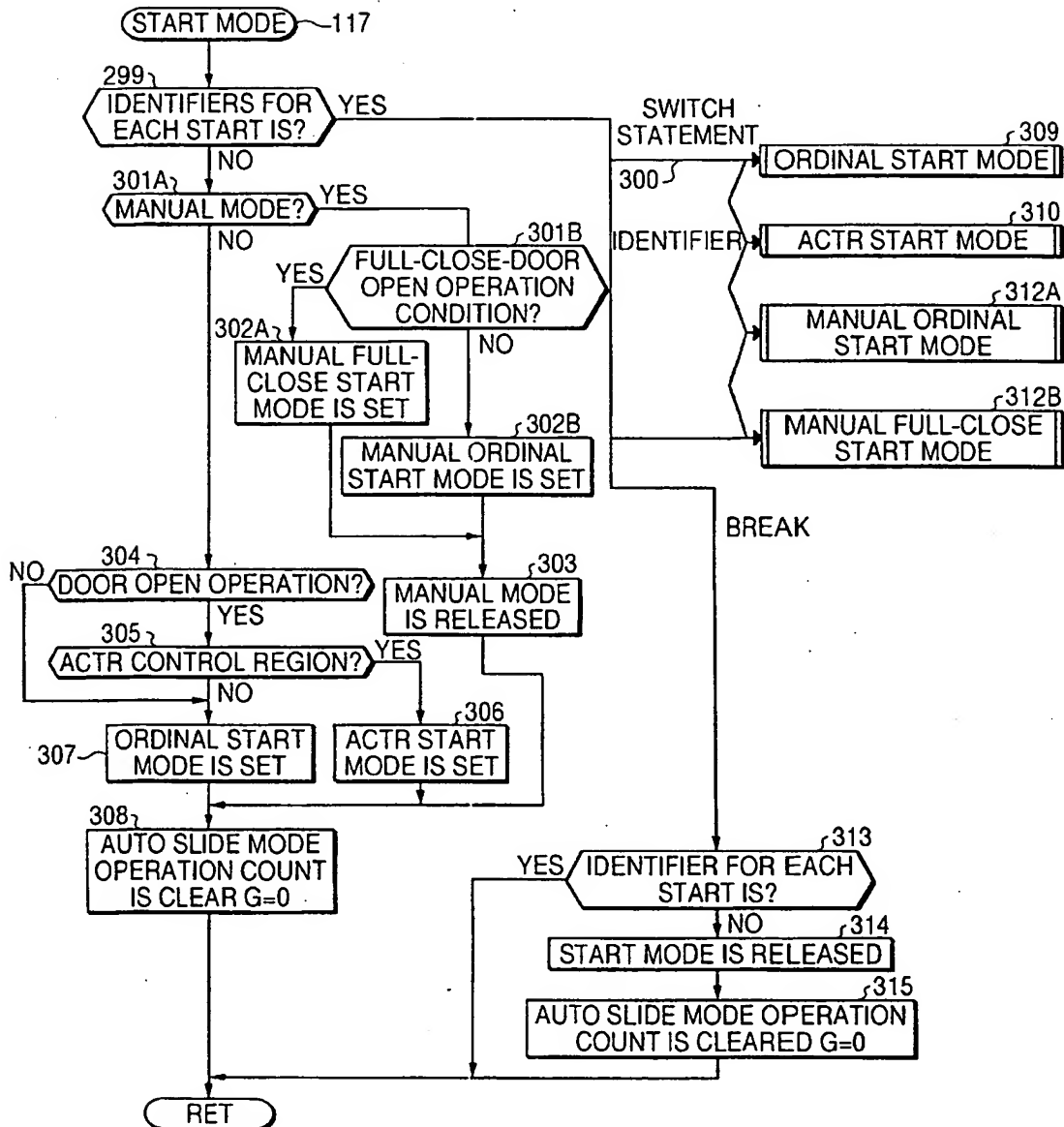


FIG. 27

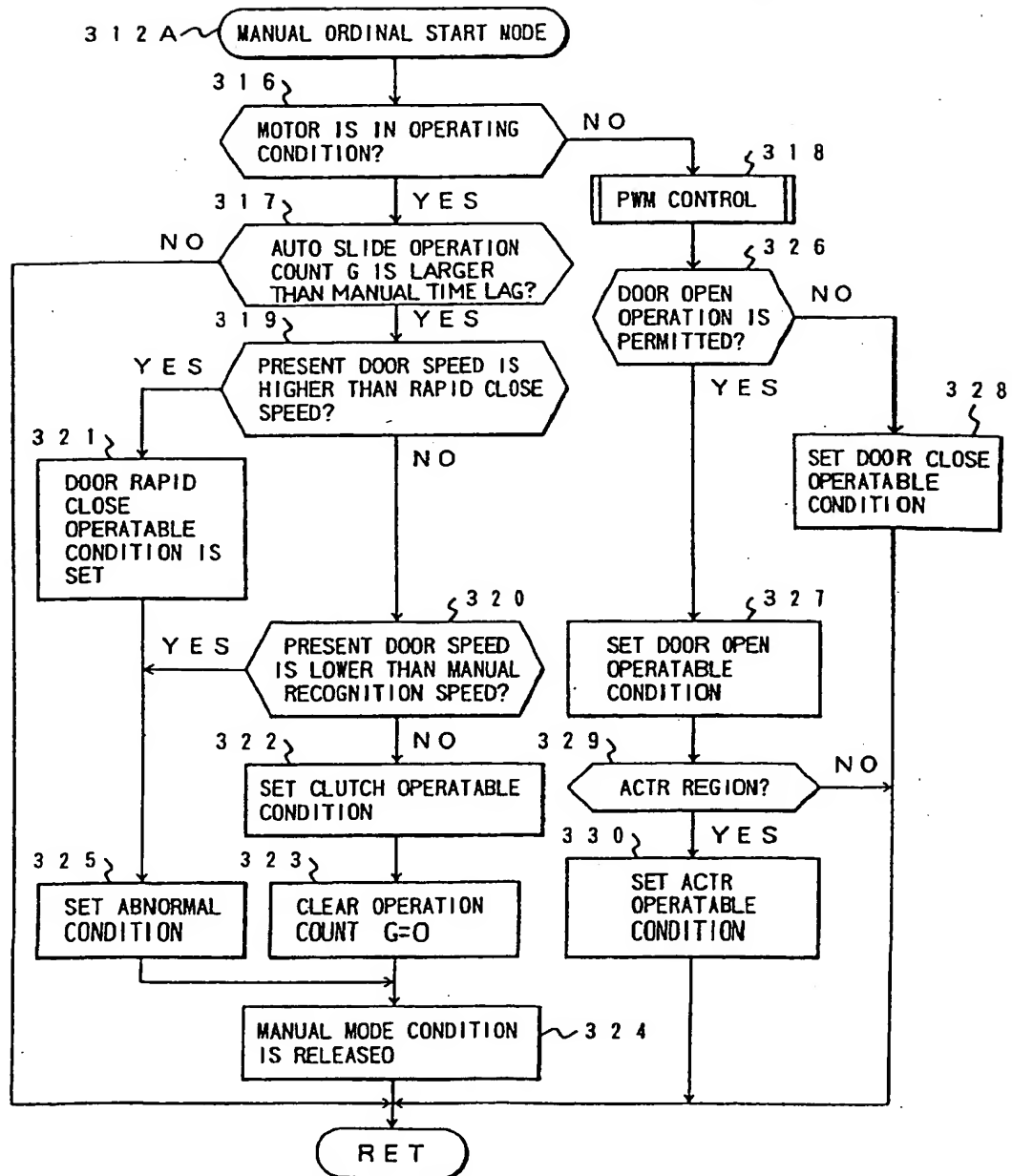


FIG. 28

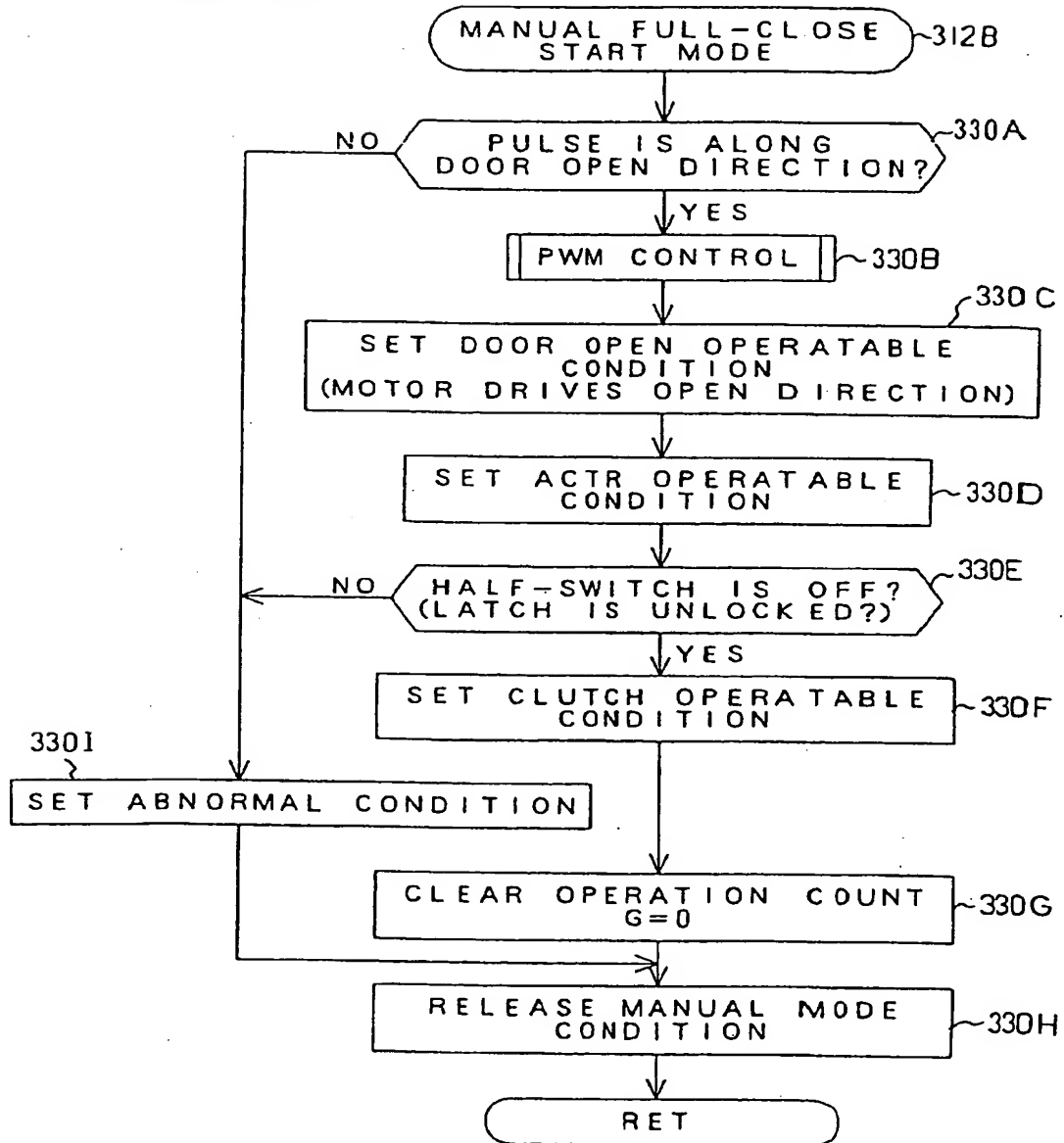


FIG. 29

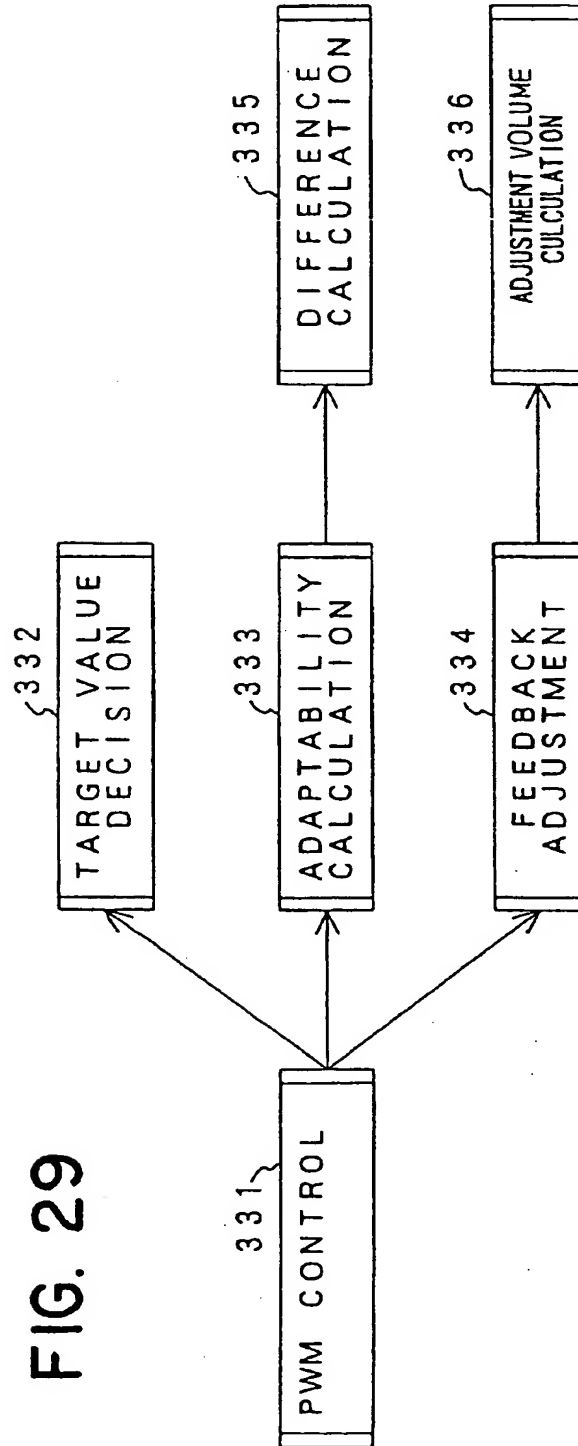


FIG. 30

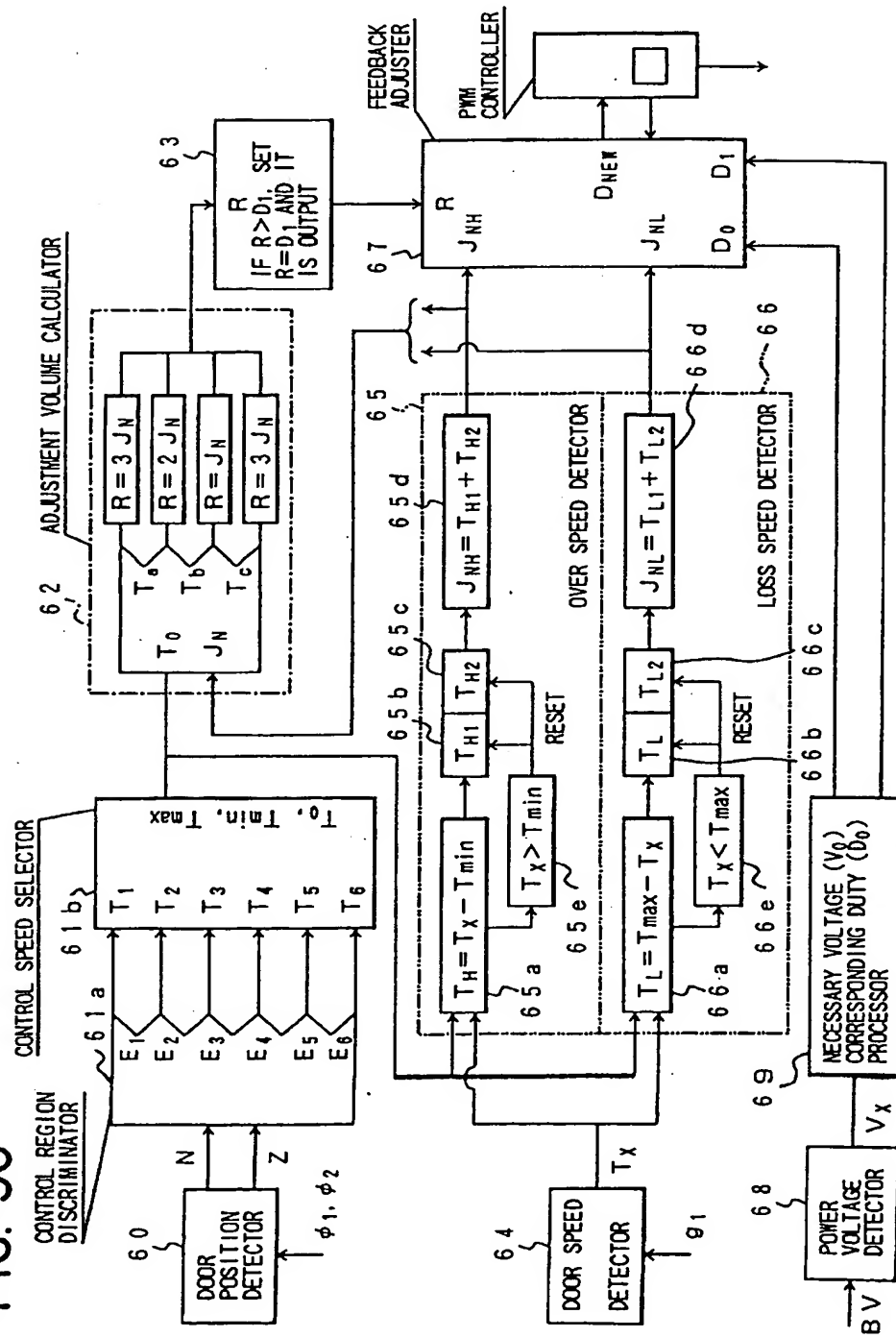


FIG. 31

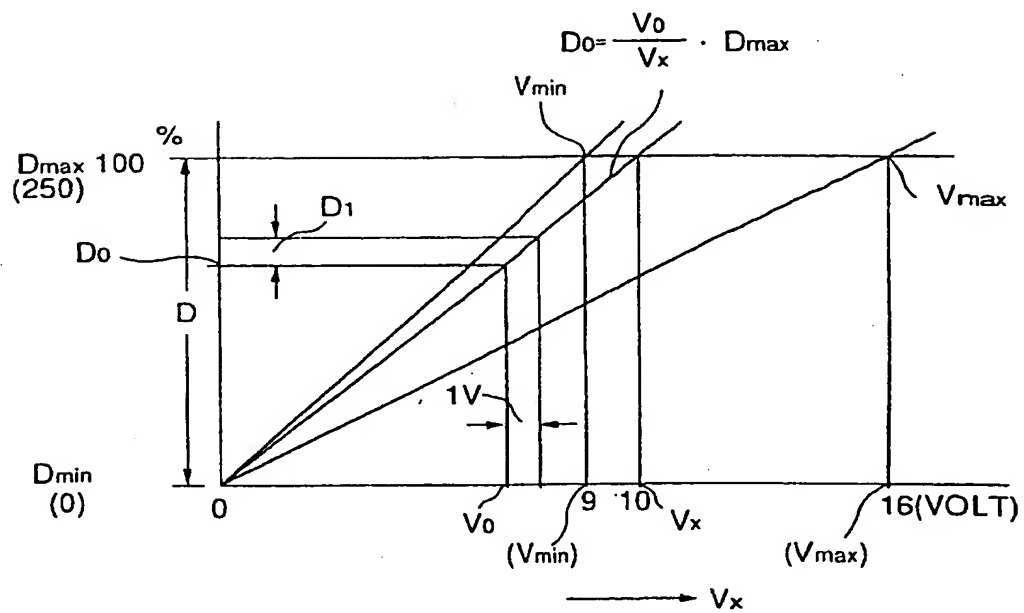


FIG. 32

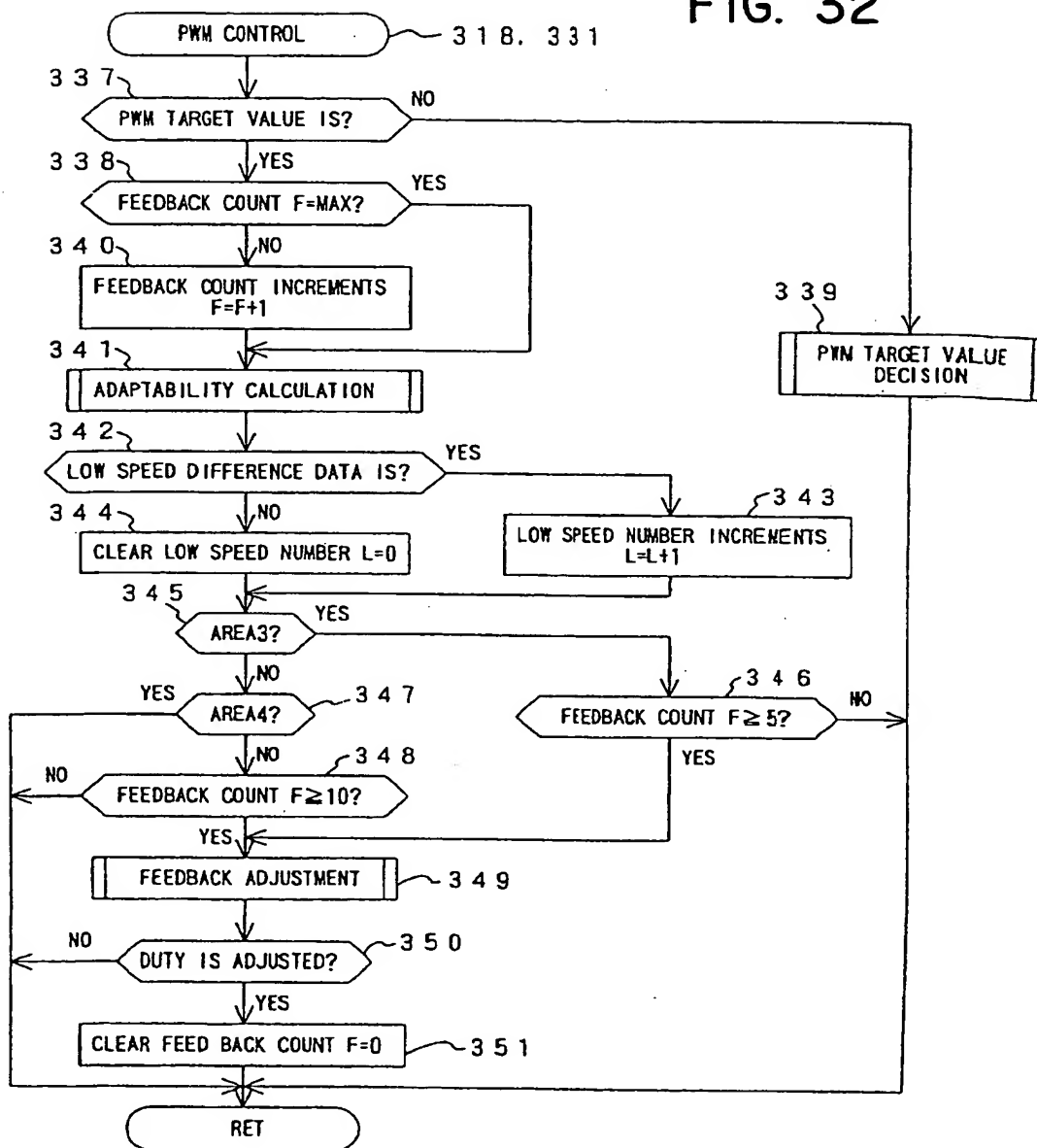


FIG. 33

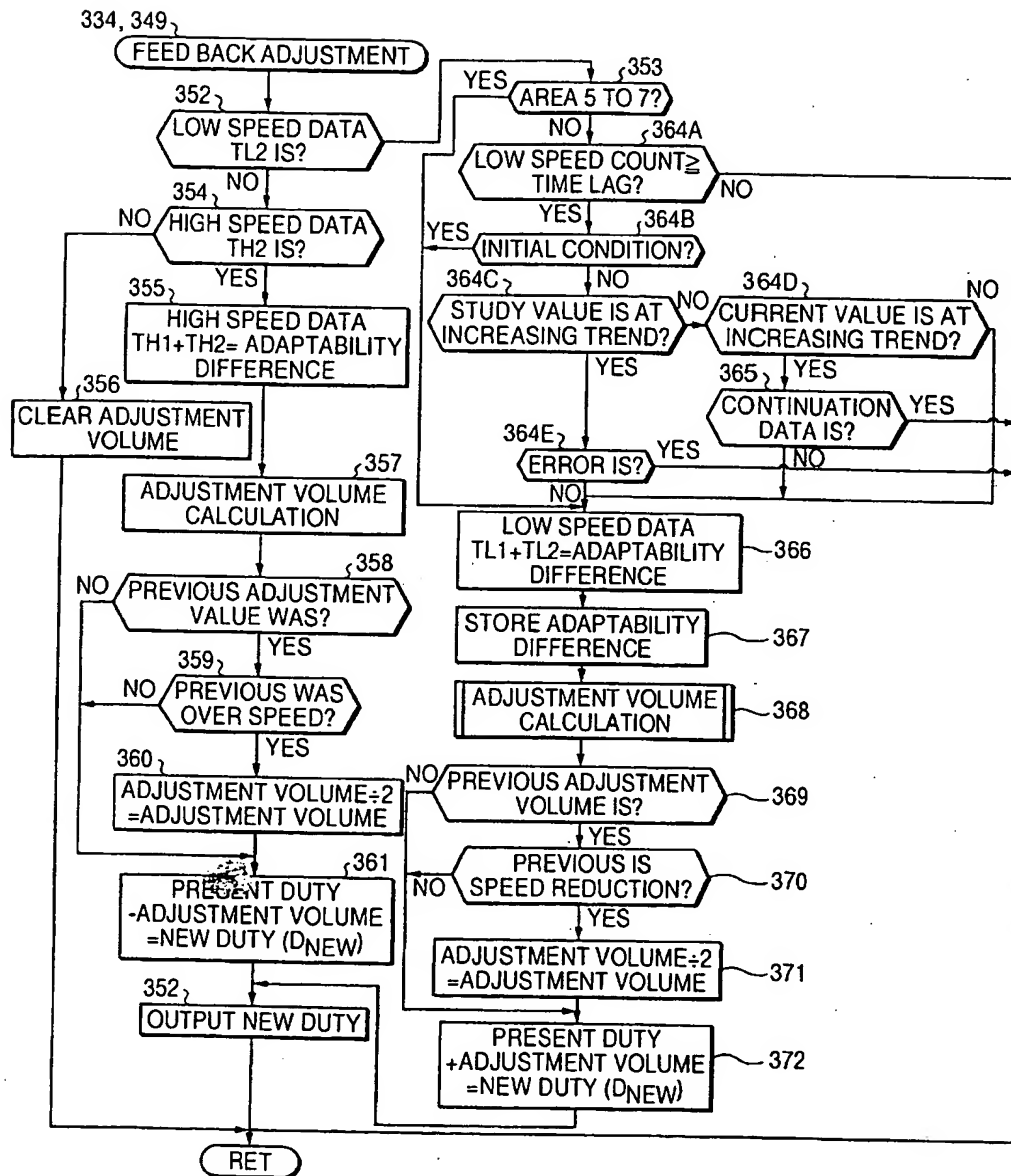


FIG. 34

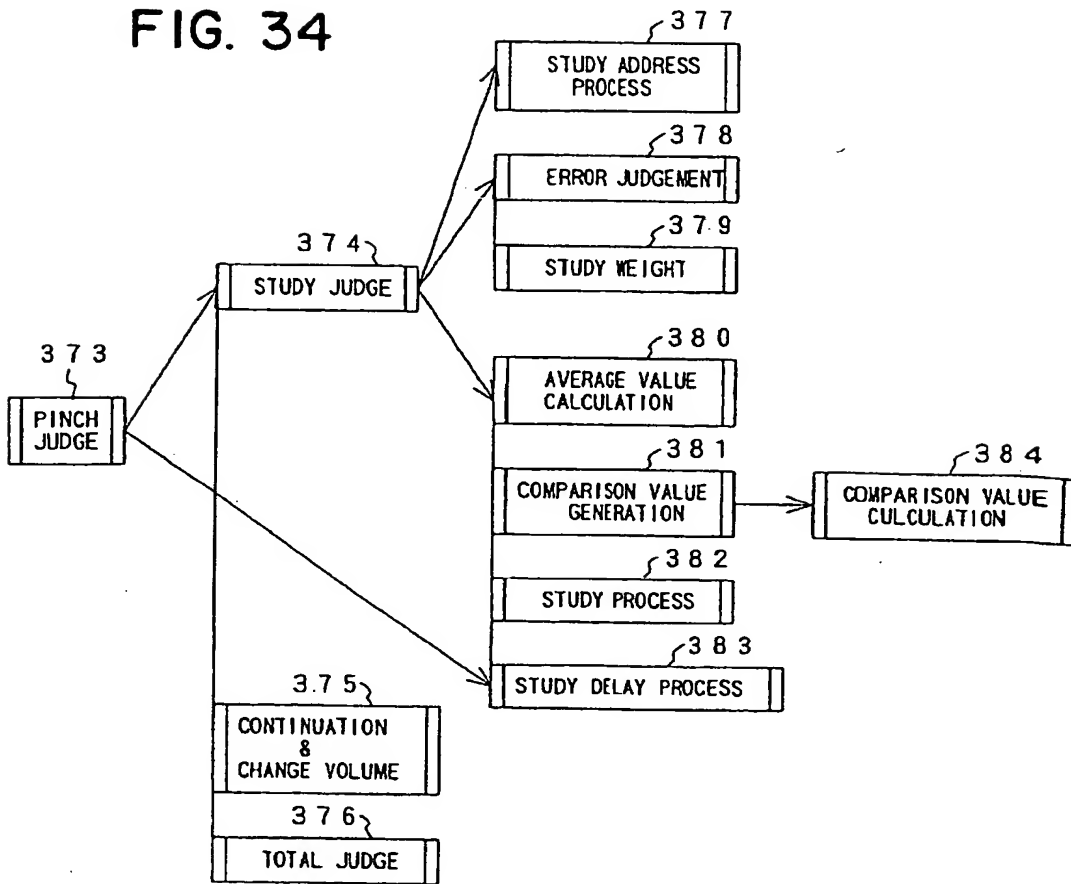


FIG. 35

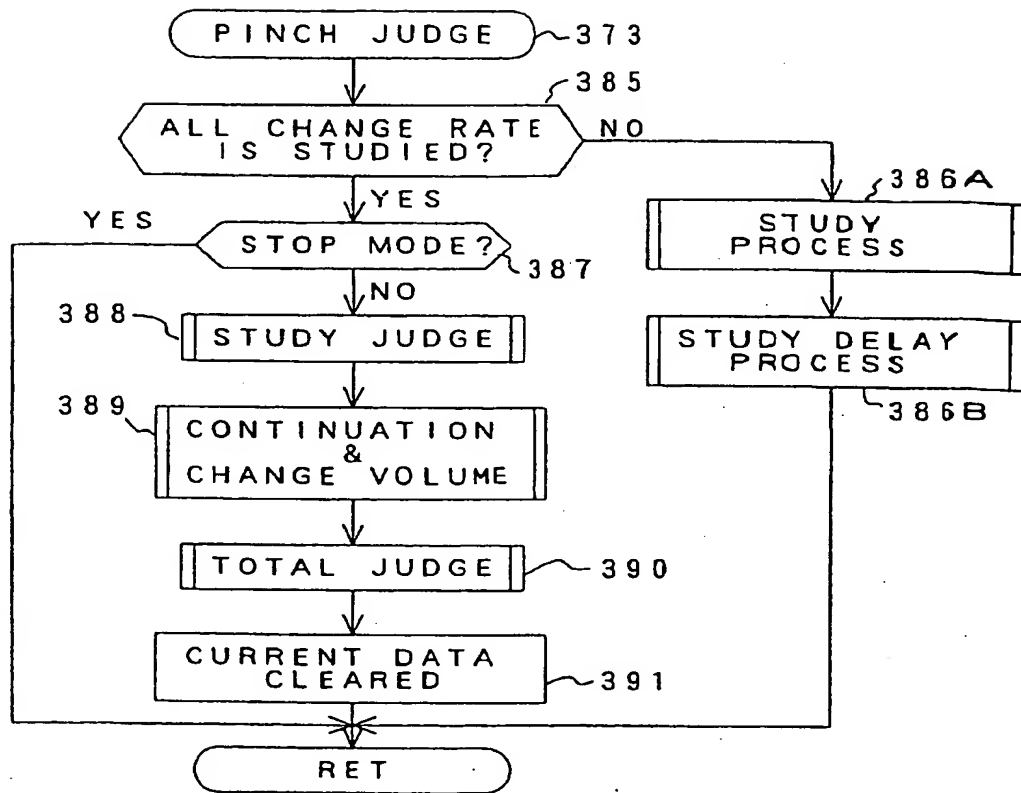


FIG. 36

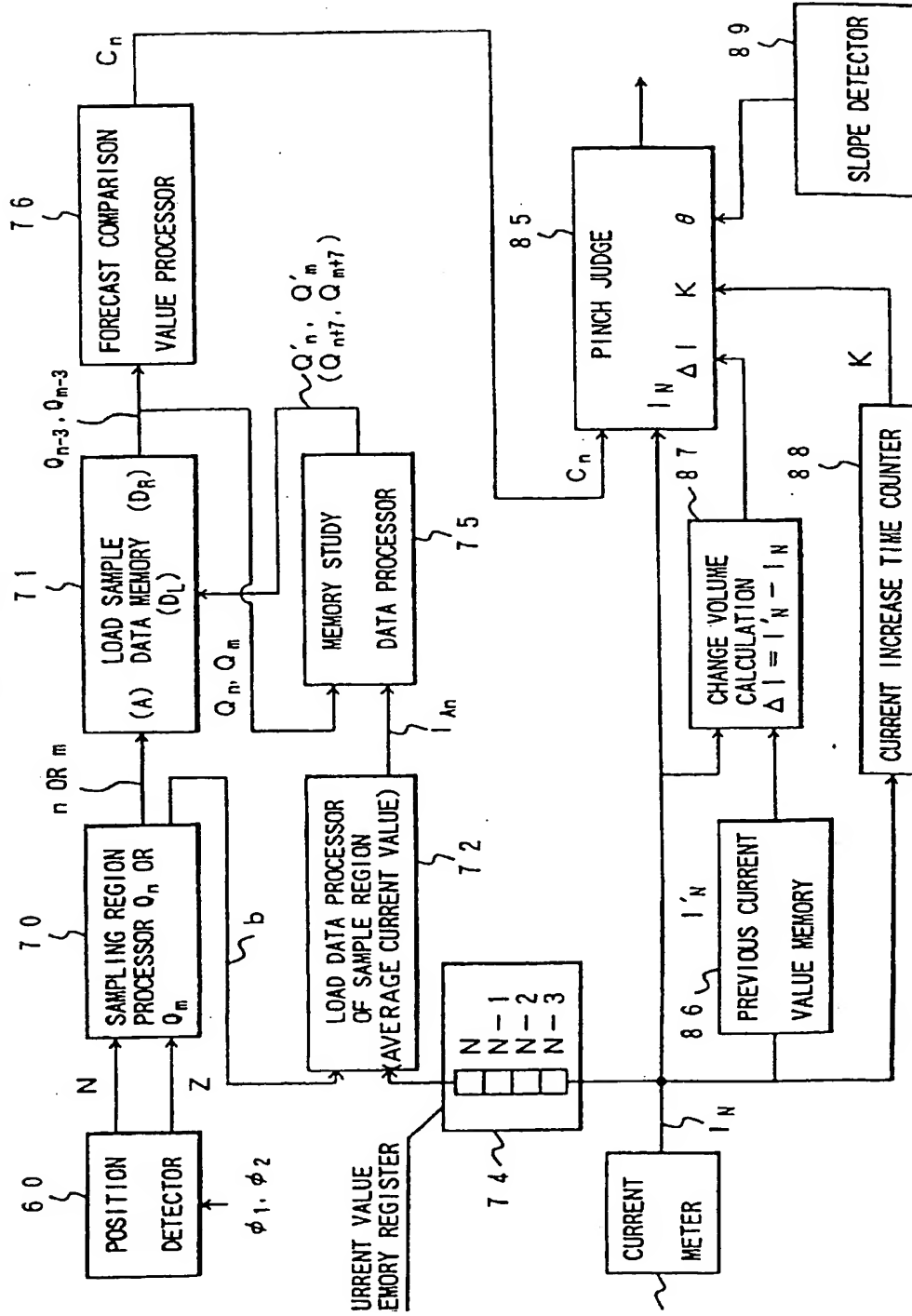


FIG. 37

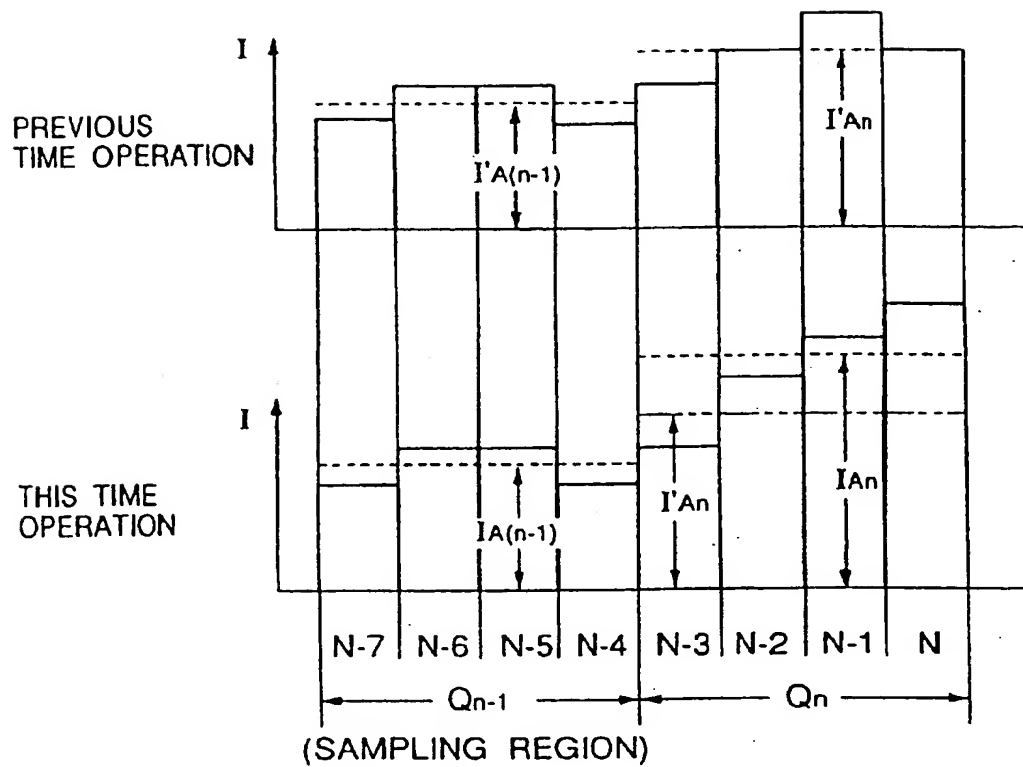


FIG. 38

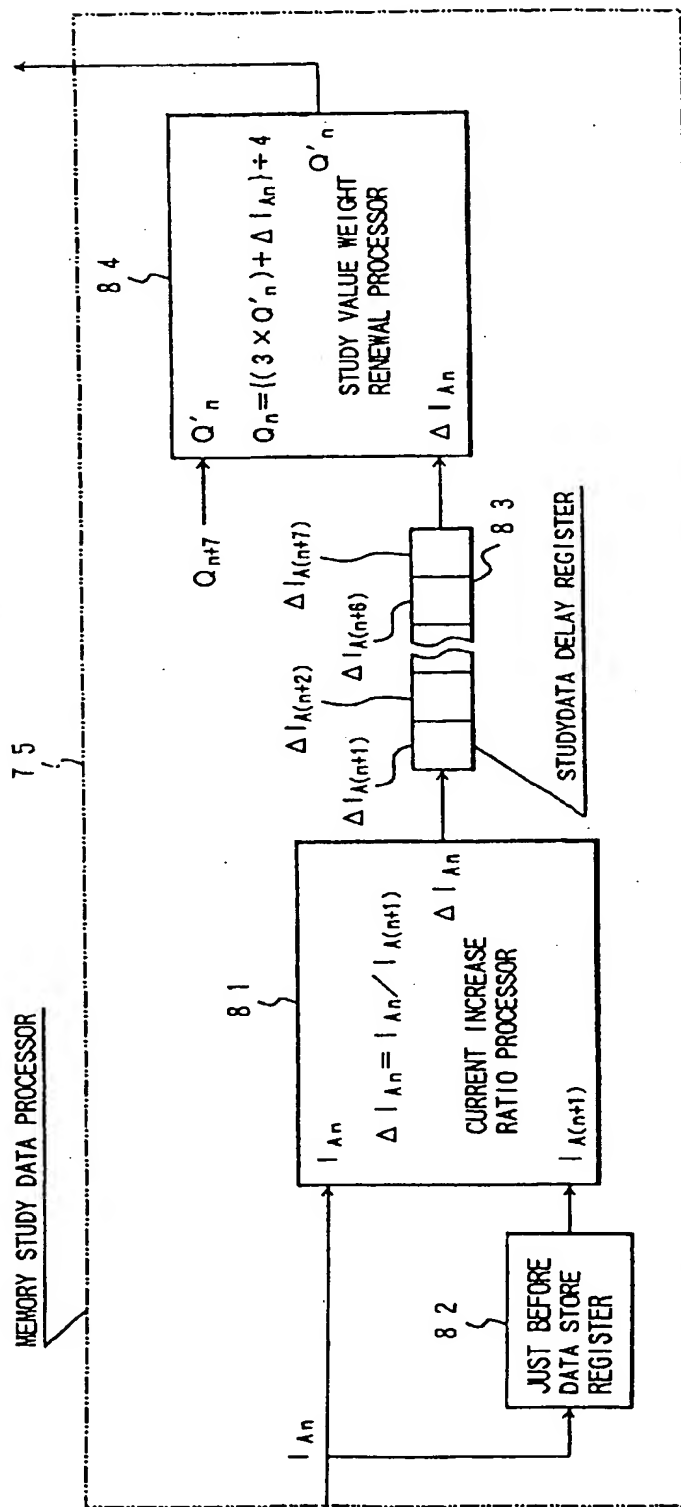


FIG. 39

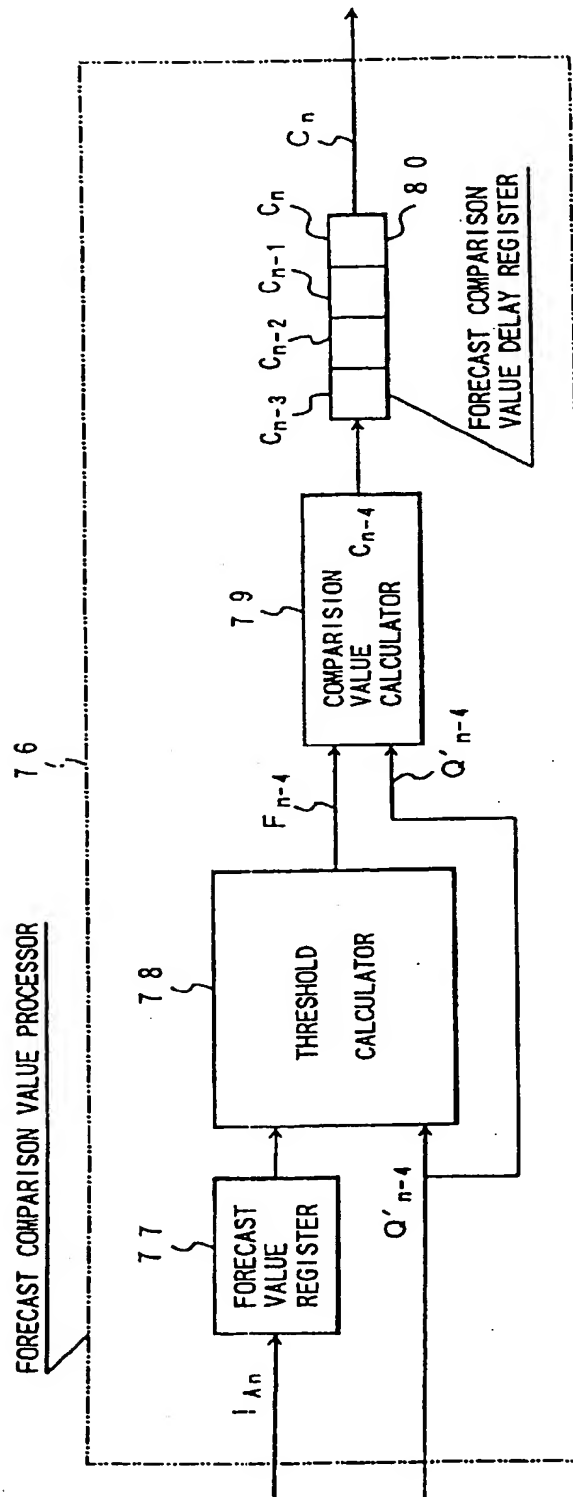


FIG. 40



FIG. 41

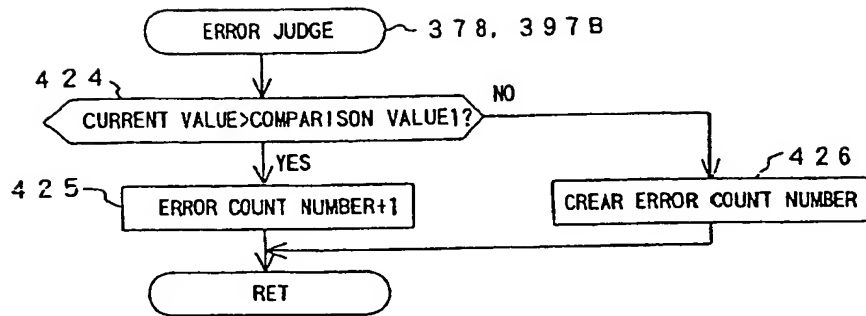


FIG. 42

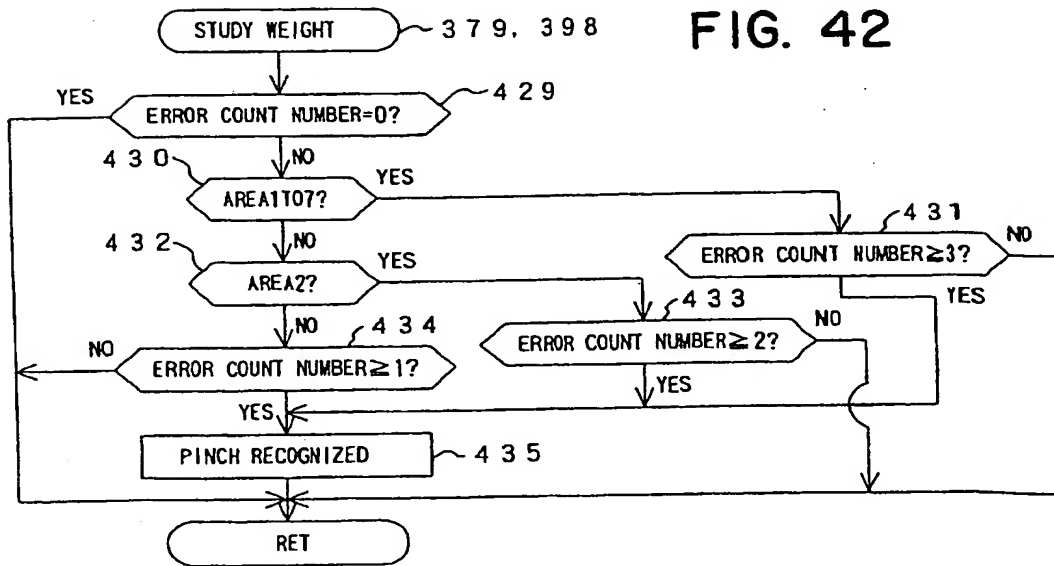


FIG. 43

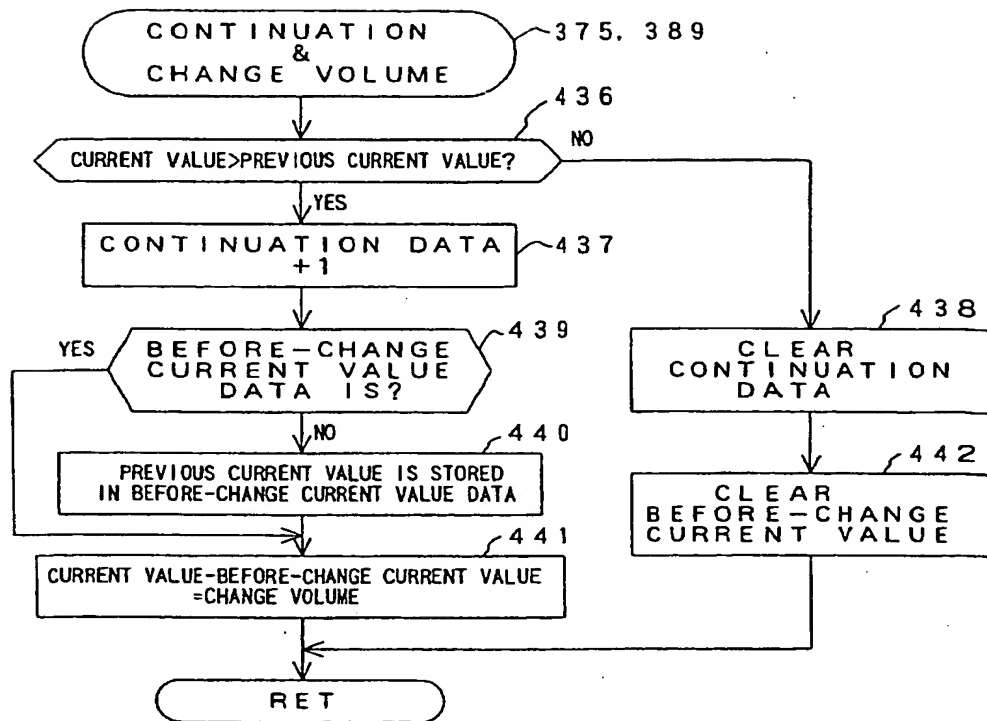


FIG. 44

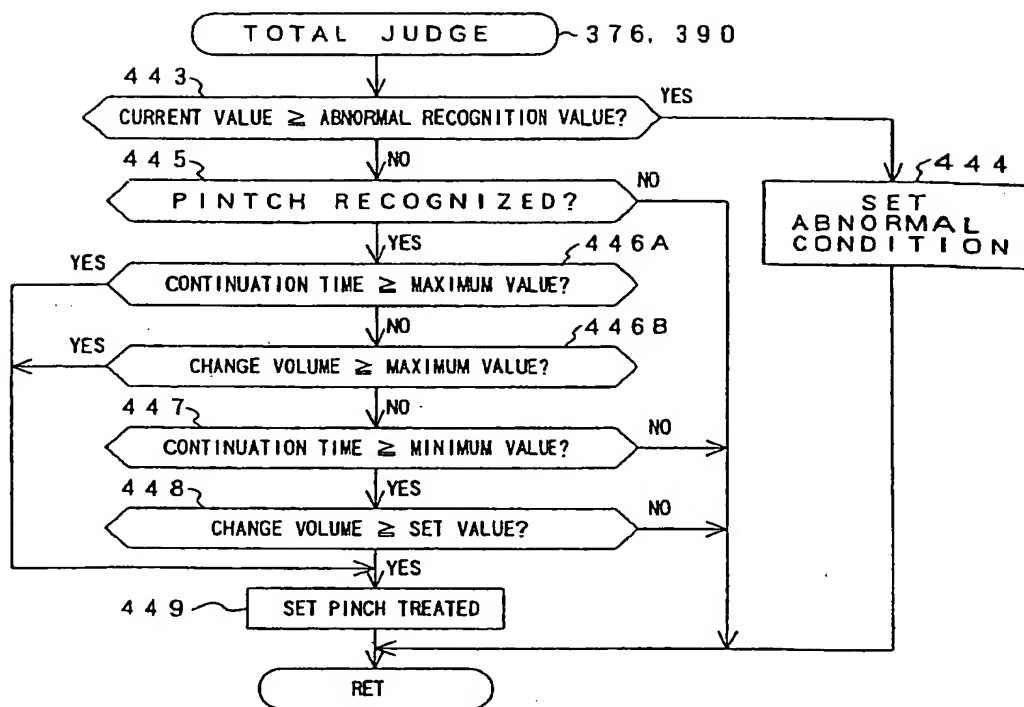


FIG. 45

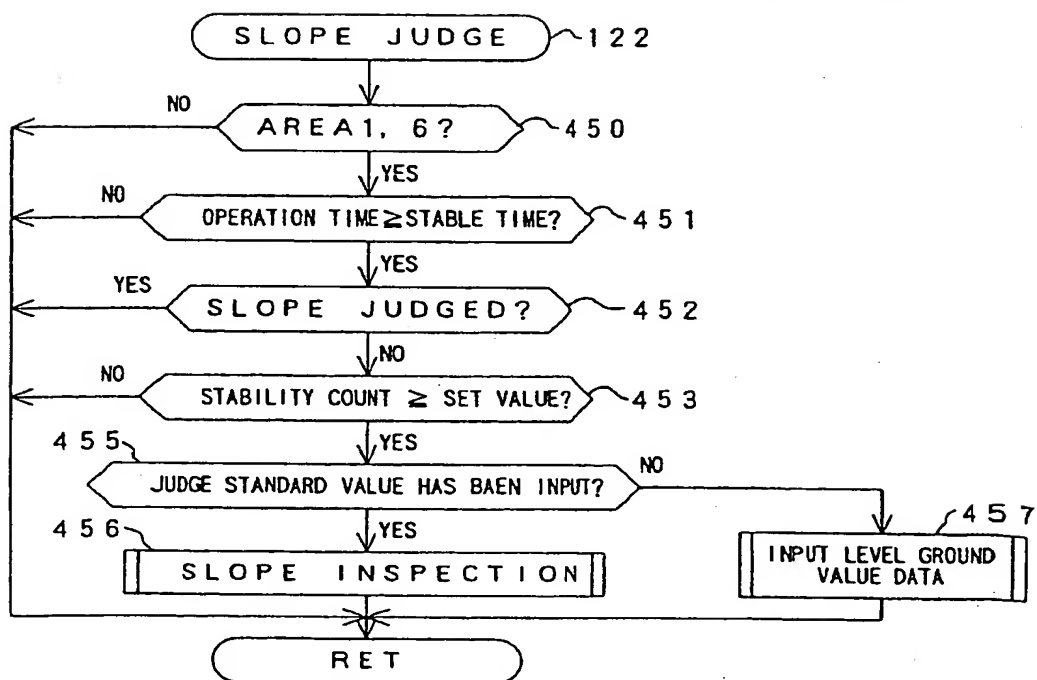


FIG. 46

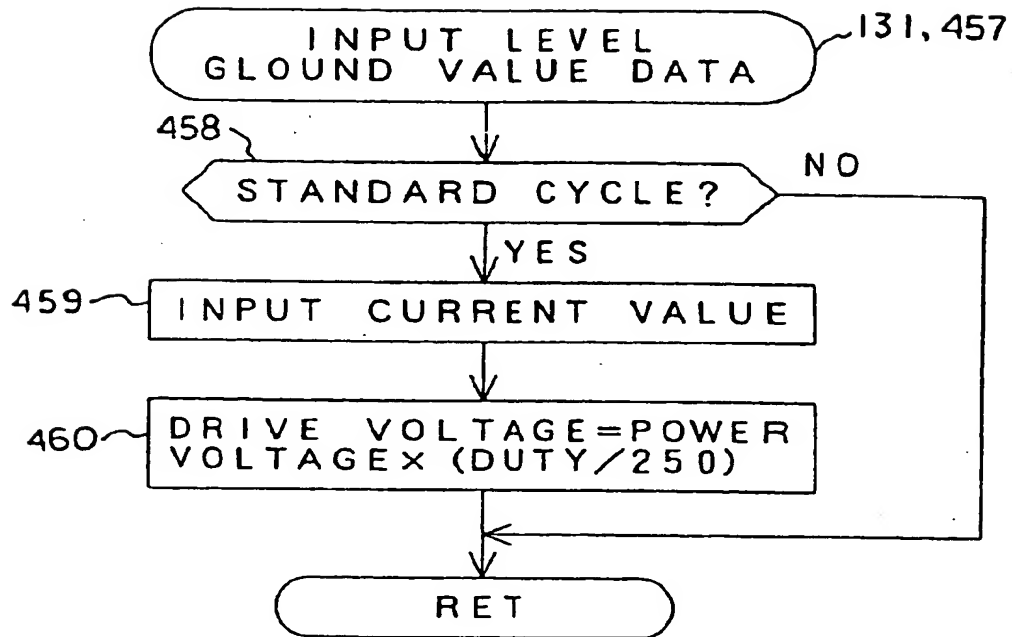


FIG. 47

